Departments of Labor and Health, Education, and Welfare Appropriations for 1955

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HEARINGS

BEFORE THE

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

EIGHTY-THIRD CONGRESS

SECOND SESSION

DEPARTMENTS OF LABOR AND HEALTH, EDUCATION, AND WELFARE

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PART 2

(PUBLIC HEALTH SERVICE)

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE APPROPRIATIONS, 1955

PUBLIC HEALTH SERVICE

TUESDAY, MARCH 30, 1954.

WITNESSES

DR. LEONARD A. SCHEELE, SURGEON GENERAL
DR. W. PALMER DEARING, DEPUTY SURGEON GENERAL
DR. OTIS L. ANDERSON, CHIEF, BUREAU OF STATE SERVICES
DR. JACK MASUR, CHIEF, BUREAU OF MEDICAL SERVICES
DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
ROY L. HARLOW, CHIEF FINANCE OFFICER
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
JAMES F. KELLY, BUDGET OFFICER
ROBERT W. BROWN, ASSISTANT BUDGET OFFICER

Mr. BUSBEY. The committee will come to order.

This morning we start hearings on the 1955 budget for the Public Health Service of the Department of Health, Education, and Welfare.

We have before us again the Surgeon General, Dr. Leonard A. Scheele, and we will be very happy to hear from Dr. Scheele at this time.

GENERAL STATEMENT

I might state, Dr. Scheele, that we have had an opportunity to review your prepared statement. In order to save your time and the time of the committee, if you will summarize the statement, we will have your full statement inserted into the record, and then we shall go into the questioning.

(The prepared statement referred to is as follows:)

GENERAL STATEMENT OF THE SURGEON GENERAL

There have been no statutory changes in the programs operated by the Public Health Service since we last appeared before your committee. The overall budget which we are presenting for currently authorized programs for the fiscal year 1955, has been significantly decreased below appropriations for 1954.

The Public Health Service appreciates the thoughtful and considerate manner in which you, Mr. Chairman, and the members of this committee always approach the task of reviewing our proposals. I hope we will be able to justify in your minds the same high regard for these important health programs which led the President to include these funds in his budget for 1955.

The functions and facilities of the Public Health Service comprise a strategically important element in the Nation's total health resources. Curtailment of some of our programs over the past 3 years, therefore, has meant a certain amount

of weakening of the Nation's total public health effort. It is hoped that the committee will consider our current budget requests reasonable, since reductions below the proposed level may result in some further diminution of nationwide effort.

1953 HEALTH RECORD

It would appear from 1953 reports on a sample of the population that the Nation's general death rate will remain at 9.6 per 1,000 population. There has been no marked change in the crude rate since 1950. To a certain extent, this leveling off of the general death rate is to be expected, since a larger proportion of our population is living to old age. It may be that the United States will not experience any significant reduction in the general death rate in the future—unless we find ways to reduce further the deaths due to chronic diseases in the older age groups and the deaths due to diseases of infancy.

Partial figures for 1953 indicate rises in the death rates from the major cardiovascular-renal diseases and cancer. Although the tuberculosis death rate for 1953 will be substantially lower than in 1952, this reduction will result in part from the momentum of case-finding programs carried out in former years. The number of tuberculosis cases occurring each year remains high. Up through 1952, new cases of tuberculosis were being reported in the States and Territories at the rate of 100,000 or more annually. Each case—plus all those undetected—is a potential source of increased spread of tuberculosis.

Death and invalidism due to other infectious diseases also continue to decline. This favorable trend, however, must not be permitted to hide the size of our uncompleted task. For example, at least 90,000 cases of syphilis and 1 million cases of gonorrhea are occurring annually.

In short, Mr. Chairman, the organisms that cause tuberculosis and venereal diseases are still with us; still very much alive in sizable groups of the population. The same can be said of the acute infections. The diseases carried by mosquitoes and other insects are an ever-present threat. Intestinal infections, spread by polluted water and contaminated milk and foods, are suppressed—but not eliminated. Influenza, poliomyelitis, and other vital infections that cause so much suffering and disability continue unabated.

With respect to the major chronic diseases and mental illnesses that disable for long periods: there is nothing to indicate the slightest reduction in the millions of people seriously affected by them. The American population is increasing at a rate of about 2.5 million a year. The chronic diseases affect all age groups. Their most serious effects strike with particular intensity in the productive years—from age 25 onward—and with increasing frequency in later life. At present, 8 in every 100 Americans are 65 years of age or older—and that figure is increasing. As deaths from acute diseases continue to decline, and as more of our citizens attain advanced age, the chances of acquiring a chronic disease or mental illness increase. In fact, unless some means are found to improve and apply more widely the methods for early diagnosis and treatment of the chronic diseases, congenital impairments, and mental illness, we can anticipate continued increases each year in the numbers of people afflicted.

Looming on the horizon also is the growing problem of accidents. In 1952 motor-vehicle accidents killed 38,000 people on our streets and highways, and injured 1,350,000 others. The medical profession and the public-health agencies generally have not been very active in this field, adding their knowledge and skills to those of the hard-working voluntary organizations, State and local authorities who are striving valiantly to stem this terrific tide of slaughter and maiming. The White House Conference on Highway Safety, held in Washington, February 17–19, highlighted this growing and unsolved problem.

Two other closely related problems of continuing importance are healthful housing and the prevention of home accidents. In 1952, 29,000 people were killed and 4,300,000 injured in home accidents. In both these fields of housing hygiene and home accident prevention, the Public Health Service and some of the State and local health departments are working for improvement, as partners with voluntary agencies, foundations, and other official agencies.

THE COSTS OF SICKNESS

Illness, injury, and premature death impose a heavy burden on the national economy. It is felt in many ways, the most prominent of which are: loss of productive labor and income; creation of dependency in many cases; and a mounting demand for more goods and personnel to provide facilities and services for the sick and injured.

Loss of man-days of productive labor from disease is a hidden cost of incalculable but tremendous magnitude. Estimates presented recently to the House Committee on Interstate and Foreign Commerce indicated an annual loss of 175 million man-days due to heart disease alone, and 150 million due to arthritis and rheumatism. On the average, there are close to 700,000 patients (697,521 in 1951) in our mental hospitals every day in the year.

The costs to the Nation in Federal and local expenditures for public assistance and in loss of taxes runs into the billions of dollars. It has been estimated that more than $1.5 billion in public funds per year go for cash payments to the disabled. In 1951 the estimated aggregate loss of earnings due to temporary and extended disability ranged between $25 and $32 billion. At the present higher average wage, those figures would have to be raised for 1953. That estimated loss does not include expenditures by families for care of the disabled, or the costs of labor turnover to the employer; nor does it include the loss of potential income due to premature death.

The direct costs of sickness to the taxpayer are startling. The major health expenditure by Federal, State, and local governments is for medical and hospital care. The total Federal expenditure for civilian health and medical services in the fiscal year 1952 amounted to $1.1 billion, and nearly two-thirds of this expenditure was for hospital and medical care of Federal beneficiaries, chiefly veterans. State and local governments spend more than $1.7 billion annually in their own tax funds for hospitals and medical care. For the care of the mentally ill alone, Federal and State expenditures combined amount to $1.1 billion annually; and for care of tuberculosis patients, more than $300 million a year.

Many of the diseases and physical handicaps which cost the Nation such staggering sums in lost income and expenditures for patient care could have been prevented or their disabling results alleviated. At present rates, one of the few firmly predictable economic indices is a steadily rising cost of disease to the taxpayer—unless increased emphasis all along the line is placed on prevention and the reduction of disabling illness.

THE ROLE OF THE PUBLIC HEALTH SERVICE

As you know, the Public Health Service is charged by Congress to conduct important research programs; to operate hospital and medical-care programs for certain Federal beneficiaries, as well as such national services as foreign quarantine, vital statistics, control of biologic products, water-pollution control, and others; and to provide financial and technical assistance to the States in public health and in hospital and health center construction.

Our programs of research, medical care, and assistance to the States are conducted in three operating bureaus—the National Institutes of Health, the Bureau of Medical Services, the Bureau of State Services. I wish to emphasize, however, that each bureau has some share in all of our major functions. The organizational structure is one of emphasis rather than of exclusive jurisdiction. The bureau chiefs are not only responsible for the administration of specific programs, but also serve in a staff capacity to advise on the coordination of programs in their areas.

The Public Health Service also plays an important role in the health activities conducted by other parts of the Federal Government. Many departments and independent agencies require the services of highly qualified personnel to carry out the health phases of programs designed to accomplish other primary purposes. For more than 40 years, the Service has had the legal authority to provide professional staffs and consultative services to such parts of the executive branch as request them. The assignment of such personnel is on a reimbursable basis, except in cases where the Service has a statutory responsibility.

In describing the multiplicity of health activities in the executive branch, the first Hoover Commission report lauds the coordinative value of this function of the Public Health Service. The device of assigning Public Health Service officers and providing expert consultation not only prevents overlapping of health functions, but also assures uniform professional standards of recruitment, and promotes coordinated planning and efficiency in health activities of the Government. The Service is proud of the role it has played in this respect. During the past year, we have rendered such services to the Departments of State, Treasury, Defense, Interior, Justice, and Commerce, and to the Atomic Energy Commission, the Foreign Operations Administration, and several other Federal agencies.

In all its functions, then, the role of the Public Health Service is central in the implementation of the Nation's health policy. I should like to discuss briefly the three major aspects of our mission in the light of current conditions and in relation to our budget requests for 1955.

RESEARCH FUNCTIONS OF THE PHS

The basis of all progress in outflanking disease is research. The first Hoover Commission recognized this in the following statement: "Medical research has conquered plagues and numbers of mortal diseases. It is today a resourceful, potent force of incalculable humanitarian, national, and world value. * * * Such research must be stimulated and supported to the extent which may prove necessary to the maximum potential of the skilled manpower."

Progress has been made toward that objective. Support of medical research from both private and public sources has expanded. Increases in Federal support of research have been paralleled by increases in voluntary support. But the Nation has not yet made available the full support necessary for complete exploitation of its research potential. The net consequence of the current failure to invest sufficiently in medical research is to extend the period during which the economic burdens of disease will continue to increase.

The 1955 budget request of the Public Health Service for medical research in the National Institutes of Health and for support outside is at about the same level as the appropriation for this purpose in 1954. Although this level will not permit support of all the new work which we believe worthy of investment, it will help to maintain stability and continuity of medical research in the Nation's medical schools, universities and other laboratories. The Service and the institutions concerned feel that stability and continuity are the essentials for fully productive research and a maixmum return on the taxpayer's investment. The Congress has endorsed this principle each year since the passage of the National Cancer Institute Act in 1937.

Our budget request will provide also for modest expansion of the research programs at the new clinical center of the Public Health Service. Much promising work is underway in our laboratories and in other institutions with Public Health Service grants. We confidently expect that discoveries in the medical sciences will enable the Nation to reduce sharply the burden of chronic disease in the next 10 to 25 years, as a result of governmental and voluntary support of research.

The Public Health Service is also conducting vital research programs at the Communicable Disease Center, the Robert A. Taft Sanitary Engineering Center, and in various other programs. I refer to the programs of the two centers at this time because occasionally there is a tendency to overlook the essentially investigative nature of the work in these facilities of the Service, as well as the significant contributions they are making to public health science.

Medical research—in the narrow sense—is only one segment of the broad field of scientific study which must be pursued continuously if man is to live safely and healthfully in his environment. Statistical and administrative research, psychological studies, research on animal and insect vectors of disease, and environmental research all are essential to provide scientific bases for public health progress.

In the United States today, it is vitally important that we acquire new scientific findings about the man-made environment to which all of us are exposed. We have acquired the knowledge and skill to control the natural environment to a far greater extent than our man-made environment. A vast number of physical and chemical forces have been loosed upon the world we live in. These must be understood and modified in relation to human health. We need to know the extent to which people are exposed to these forces, the effects of them, and the limits to which the human organism can tolerate such exposures. Support of research in this field of environmental research lags far behind that in other health fields.

A move toward closing that gap has been made by the Congress in providing for the construction of the Public Health Service's new facility for sanitary engineering research at Cincinnati, the only national institution of its kind. Our research there will focus on the engineering aspects of community and regional health problems, as distinguished from the general medical approach emphasized at the National Institutes of Health.

The new Robert A. Taft Sanitary Engineering Center has been designed to permit our scientists to study a wider range of potential hazards characteristic of

the modern environment. The facilities, of themselves, will not accomplish the purposes for which Congress authorized construction funds. As in other research efforts, the Public Health Service cannot carry out the intent of Congress without sufficient resources to staff and conduct well-planned studies. The funds requested for the Robert A. Taft Sanitary Engineering Center in 1955 will permit us to conduct limited studies on some of the major problems which, if unsolved, will be important factors limiting the full application of America's ever-increasing technology.

To be specific, we face these problems: the increasing use of chemicals and their effects on our $10 billion investment in waste and sewage facilities; the lack of knowledge as to the efficiency of water treatment facilities to remove viruses and injurious chemicals from drinking water; the growing pollution of our drinking water sources; water shortages, associated with our greater use of water; increased use of nuclear energy with its harmful radiations; and the growing problem of air pollution, a target area as yet almost untouched.

The Public Health Service recognizes that our research in these fields cannot cope with the total problem. We hope that the new center and its staff will serve as a sparkplug to ignite the considerable research potential in the Nation's universities and technological institutions where scant attention is being paid to the health aspects of technological changes.

In the control of communicable diseases, too, there is urgent need for more effective and more economical methods than those most commonly employed today. The Communicable Disease Center of the Public Health Service is focusing attention on this broad problem, with particular reference to the prevention of such viral diseases as infectious hepatitis, encephalitis, and poliomyelitis. The center also conducts many important investigations of practical public health problems as they exist in the field.

In this connection, I believe that the Public Health Service should concentrate on helping to get the answers to many questions about infectious diseases which have puzzled health workers for years. Armed with the answers, the Nation's health departments could pinpoint their control programs in such a way as to prevent a great deal of illness and at the same time release scarce health personnel for other, more urgent duties than routine procedures in communicable disease control as we know it today.

For example, we know that some infections are almost universally present in the population—yet only a small proportion of the people become ill with these diseases. Some viruses remain alive in individuals for a long time, yet the viruses manifest themselves in symptoms only infrequently. Probably every individual has harbored the poliomyelitis virus at some time in his life. Why hasn't everyone had polio? The same question could be asked for the same reason about tuberculosis. Anyone who gets a "fever blister" probably has been carrying the herpes virus—the causative agent—for months. The blister will heal but the virus will stay—and not show up again as herpes for another long stretch. If our research scientists can find out what factors—other than the presence of the virus or germ—produce the "disease," then the health agencies may be able to deal with these other factors so as to prevent the appearance of symptoms or to abate the severity of the illness.

Problems of this sort—in both chronic and acute diseases and in environmental research—constitute a never-ending challenge to a research organization like the Public Health Service. Had investigations on insecticides been terminated in the thirties, we would not have had DDT during World War II, nor its related vector-killing compounds. Had we not pressed on in our search for better vaccines, we would not have had the superior antityphus vaccine, developed by the Public Health Service, for our troops overseas during the past 13 years. Had scientists been satisfied with the sulfa drugs for the treatment of infections, we might not now have the superior antibiotics.

Research to find new principles of disease control and inventive efforts to develop these into useful public health practices, must go on. Without it, the Nation's private physicians, its State and local public health staffs will not be equipped to deal with the present and future threats to human life. I am confident that the research programs of the Public Health Service in the National Institutes of Health, the Robert A. Taft Sanitary Engineering Center, the Communicable Disease Center, and other units will pay back a hundredfold the Nation's investment in lifesaving and healthbuilding for the American people.

ASSISTANCE TO THE STATES AND TERRITORIES

The Public Health Service performs a distinctive activity in its programs of assistance to the States. Our development and demonstration of new, practical methods of disease control, our technical assistance and financial aid to the States are the functions which actually put the research findings to work in the reduction of deaths and disability. These are the skills and activities which make us a public health service.

The struggle of many States and localities to maintain their current programs emphasizes anew the importance of the Public Health Service's direct operations in the entire area of public health practice and administration. It is a major responsibility of the Service not only to conduct investigations on disease control and environmental hazards, but also to develop and demonstrate improved control methods; to assist in the training of public health personnel in the new methods; and to provide the States with expert consultation on a wide variety of practical health problems.

These activities have a common aim: To assist the Nation's health agencies in improving and strengthening the services they provide directly to reduce the toll of deaths and disabling illness among the American people. Assistance may take the form of a demonstration, conducted in cooperation with a local dental society and health department, on community dental health services for children. Or, it may be a cooperative research program, conducted with a number of State tuberculosis hospitals, to determine the effectiveness of a new drug for the treatment of tuberculosis. Again, the Service may be asked to provide a team of experts in an emergency to help bring under control a serious outbreak of encephalitis as was the case in one State last year. Or, the help needed by a State may be nothing more than the temporary assignment of a public health nursing or health education consultant to assist in a State survey and planning for a program in one of these fields.

These technical assistance activities of the Service have been conducted with striking success in the control of venereal disease, tuberculosis, and malaria, in the improvement of rural sanitation, water pollution control, and in many other nationwide public health problems. Our technical assistance has made possible coperative programs with the States which have raised public health work in the United States to a status second to none throughout the world. It has helped the Nation focus attention on prevention as the most effective and economic way to combat disease, in contrast with efforts to deal with illness after it has struck.

During the fiscal year, 1953, for example, a team composed of Public Health Service and New Jersey State Department of Health personnel completed a survey of the sources and locations of excessive radiation exposure in New Jersey. A pilot demonstration of control of radiation exposure, especially in industry, has been developed and control methods are being put into effect.

Twenty-two hospitals are cooperating with the Service in the evaluation of new drugs, called the isoniazids, in the treatment of tuberculosis. The Service is also helping the Georgia State Department of Health to appraise the effectiveness of tuberculin testing of first-grade schoolchildren, as a case-finding technique in rural areas. Since it is difficult to reach rural areas efficiently with mass chest X-ray surveys, it is believed that follow-up and chest X-ray of the families of children who produce a strong positive reaction to tuberculin will lead to the discovery of active cases of tuberculosis.

During the year, the Epidemic Intelligence Service of our Communicable Disease Center responded to 27 requests for help in controlling serious epidemics. Other personnel of the center participated in the investigation and control of 125 other outbreaks.

The Communicable Disease Center and the Enrivonmental Health Center provided some type of training for more than 3,000 public-health workers during the fiscal year 1953. Some 2,500 of the trainees were employees of State and local health agencies who requested special training for their workers in laboratory procedures, the application of new insecticides, the use of the new membrane filter for the detection of bacteria in water supplies, and other new public-health techniques. Other trainees were from foreign health agencies or from private industrial establishments concerned with specific environmental health problems.

It is through such varied direct operations that the Public Health Service helps to bring to bear the findings of research on the Nation's health problems. There is, however, a vast armament of practical methods and effective agents which are not being applied intensively throughout the country. If the effective weap-

ons we now have against venereal disease and tuberculosis alone were applied vigorously in all parts of the country, the Nation would be relieved of a large share of the burden of disability and of hospital and medical costs.

Research has also given us effective weapons for the control of rheumatic fever, many types of heart disease, mental illness, and some forms of cancer. If the findings of past and future research on chronic disease and long-term illness are to bear fruit comparable with the yield in communicable-disease control, our States and communities must have help in the development and application of new and improved control methods, based on new research findings. A major contribution of the Public Health Service—in both general health services and categorical programs—has been its work with the States and communities to the end that they may have the most effective tools for the promotion of preventive programs. We hope to intensify our efforts in this direction during the coming year, at the same time pressing forward in our research programs and demonstrations.

HOSPITALS AND MEDICAL CARE

As the committee is undoubtedly aware, the hospital and medical-care program of the Public Health Service is under study by the Secretary of the Department of Health, Education, and Welfare. Mrs. Hobby has stated that no decisions with respect to future legislative proposals by the administration can be reached until the entire program has been evaluated in consultation with the other departments which have special interests in the hospitals and medical-care programs of the Public Health Service.

The Public Health Service has carried out these programs with increasing difficulty since the close of World War II. Immediately following the war there was a precipitous drop in shipping, with a concomitant decline in the number of American seamen seeking care. The effect of this decline was cushioned somewhat by the demands of the Veterans' Administration for the care of its beneficiaries in our hospitals until the buildup of veterans' facilities was achieved. At the peak of this period the Public Health Service hospitals had an average of nearly 1,500 veteran patients every day.

During the past 3 or 4 years the number of veterans treated in Public Health Service hospitals has been rapidly and drastically reduced. The resulting reductions both in our average patient load, and in the amount of earned reimbursements have required some major readjustments of our hospital operations.

In order to live within its means, the Service had the choice of reducing hospital staffs to a point below safety for the patients or of closing some hospitals. The latter course was chosen, and six hospitals were closed during the fiscal year 1953. The hospitals selected were those which served the smallest number of direct beneficiaries of the Service.

Although these changes have meant a real reduction of service, we have made strenuous efforts to maintain a high quality of care for our patients. In some instances, we have developed out-patient facilities to replace the hospitals. These clinics provide a wide range of diagnostic and therapeutic services ordinarily available only for hospitalized patients. This means that patients whose illnesses do not require hospitalization according to the best modern medical practice can obtain complete care without occupying a hospital bed. This emphasis on care of the ambulatory patient has made it possible for us to shorten the period of disability and return sick and injured people to their jobs promptly.

Fifty million dollars is being requested for allocation to the States to conduct the hospital survey and construction program in the fiscal year 1955. In the provision of hospital services it is extremely difficult for the Nation to keep abreast of the continuing increase in population and the progressive deterioration of hospital plants. A great need for hospital beds confronts the Nation, and the hospital survey and construction program has demonstrated the value and effectiveness of a cooperative approach at local, State, and Federal levels to help supply a part of the need.

It is estimated that the $50 million requested in Federal funds will be matched by approximately $100 million in State and local, including voluntary funds. The combined amount will produce about 9,000 hospital beds and a limited number of public health centers and related health facilities.

The reduced budget requested for the administration of this program will provide for the performance of statutory duties in the review and approval of State plans and annual revisions, and in the technical appraisal of project plans, specifications, contracts, and so on, to insure compliance with the law.

The regional and headquarters staff of the service, who are responsible for these technical procedures, have developed a high degree of competence, as well as effective working relationships with State and local agencies.

SUMMARY AND CONCLUSION

The Public Health Service budget for existing programs in 1955 totals $191,463,000—a reduction of more than $41 million below the appropriations for 1954. About $22 million of this reduction represents the elimination of funds for the liquidation of contract authorization. In only one major area of operations do we show an increase; the total amount requested for direct research and investigations is $2.6 million in excess of the 1954 figure.

I hope that this general review of Public Health Service activities and the state of the Nation's health has not left the impression that the reductions in our budget request for 1955 can be attributed to any diminuion of the problems with which the country is faced in these vital areas of health research, medical care, hospital construction, and public health practice. On the contrary, the problems remain substantially undiminished. We have, however, made a sincere effort to reduce our expenditures, and thus to help decrease the total Federal outlay.

Dr. SCHEELE. Thank you, Mr. Chairman and members of the committee.

We are happy to be here with you again, and I have brought with me today Mr. Roy Harlow, who is the head of our budget and fiscal operation; Dr. W. Palmer Dearing, the Deputy Surgeon General; Dr. Otis L. Anderson, the Chief of our Bureau of State Services; Dr. William H. Sebrell, the Director of the National Institutes of Health, and Dr. Masur, who is out of the room at the moment, but who is Chief of our Bureau of Medical Services.

There have been no changes in basic legislation for the Public Health Service since the last meeting of the committee.

As you know, there has been some general curtailment in our program this year over the level of our operations last year.

HEALTH OF THE NATION

I am happy to report that the Nation's health remains good; in fact, it continues to improve.

Our early samples of the data for 1953 show that our death rate will remain at about 9.6 per thousand population.

This means that for the last 3 years we will have been holding steady at this lowest death rate that we have ever attained in the United States.

However, we are seeing some of the upturn in deaths from chronic diseases, such as cardiovascular diseases, kidney diseases, and cancer, as we would expect with the increasing age of our population.

Invalidism and death continue to occur as a result of infectious diseases, however. Sometimes we are prone to emphasize only the increasing importance of aging, long-term illnesses, and chronic diseases, when in fact, our communicable diseases are still with us, and in many instances stay suppressed only because of the work that is done to control them.

On the other hand, we have made remarkable progress in reducing tuberculosis and other infectious diseases over the years.

Mental illness, of course, is another one of the major problems that we face, and large amounts of time are lost in disabilities from mental illness, and all of the chronic diseases.

Another problem of major importance is the problem of accidents, both home and motor vehicle accidents.

We all noted, with interest, that the White House held a conference on highway safety last February, and this conference helped to highlight the fact that motor vehicle accidents killed over 38,000 people last year, and injured well over 1.25 million others.

I need not remind this committee that the cost of illness and cost of invalidism, and even the economic cost of premature death, is a staggering one, in our country, as it is in other countries.

Our programs are designed to produce research to better find causes and methods of early diagnosis—hopefully, methods of prevention of diseases—and then to find more efficient methods of treatment for these diseases after they have occurred.

In addition, a major part of our program in the States relations area is devoted to a provision of grant assistance to States to help them carry on direct operating programs in the health field.

In addition, however, we provide them technical assistance; we do field research and take demonstrations to them to aid them in keeping their programs dynamic and in moving into new fields of interest.

PROGRAM AT THE CLINICAL CENTER

The new program at the Clinical Center, one that this committee has had a great interest in, is moving ahead rapidly. While we have not been able to take on all of the staff that we would like to have taken on, we have been exceedingly pleased with the quality of scientists, both fundamental scientists and clinical scientists, who have joined our staff, and I believe that the record, as the years progress, of accomplishment at the Clinical Center will be one that everyone, including this committee, will be proud of.

Our budget request for 1955 contains a request for funds for a modest expansion in the programs of the Clinical Center.

ENVIRONMENTAL HEALTH PROGRAM

We are, of course, continuing our work in environmental health. Just next week, on the 8th of April, we will be dedicating the new laboratory at Cincinnati. This Center has had its name changed since we last met with the committee, by a joint resolution of Congress and by action within the Department. The Center will be known as the Robert A. Taft Sanitary Engineering Center and, as I say, will be dedicated next week.

We find ourselves facing increased problems as time passes as a result of the increasing use of chemicals in foods and in other ways. The problem of radioactive materials as possible contaminants of water, water supplies and of our streams, as we move more rapidly now into the use of atomic power for peacetime civilian use, may become an increasing problem, and it is at our laboratory in Cincinnati that we concern ourselves with such problems.

Our program of assistance to States, while showing a slight decrease over last year's program, comes by and large very close to holding the line with this year's program.

Our work in the study of new drugs for treatment of tuberculosis is going on, and we believe that we are attaining the point where the

combination of surgery, rest and hospitalization and chemotherapy are putting us in the position to do the best job of tuberculosis control that we have ever done.

COMMUNICABLE DISEASE CENTER AT ATLANTA

Our Communicable Disease Center at Atlanta continues to help the States and communities in controlling serious epidemics. During the past year the staff of the center responded to 27 requests for help in controlling serious epidemics and other staff members participated in investigations and control of 125 epidemics, not all of which were of as serious nature as the 27 but were, nevertheless, of extreme medical importance. It seems likely that as we study some of these unusual outbreaks, we will be discovering the occurrence of diseases not hitherto described.

HOSPITAL CARE

As the committee knows, the program of our hospitals providing medical care to merchant seamen and other beneficiaries is currently under study and, as our Secretary said, no decision has been reached as yet with respect to future legislative proposals by the administration with reference to merchant seamen care. This problem is under serious study in the Department. Our hospitals are operating at the minimal level in terms of providing what we consider good care.

As the committee knows, we are determined to keep our care good, and we have closed hospitals as a means of making economies, rather than reduce the staffing of all of the hospitals in order to make up for the problems we have had in financing.

HOSPITAL SURVEY AND CONSTRUCTION PROGRAM

The hospital survey and construction program has been moving along. As the committee knows, the amount we are requesting for fiscal year 1955 is $50 million, compared with an appropriation of $65 million for the current year. In total, the budget request for fiscal year 1955 totals $191,463,000. This represents a reduction of $41 million below our appropriation for fiscal year 1954.

Twenty-two million dollars of this represents the elimination of funds for the liquidation of contract authorization. We show an increase in only one major area of operation, and that is in the amount requested for direct research and investigation. In this instance, the figure is $2.6 million. Those funds will be used primarily for National Institutes of Health direct research operations.

I hope, Mr. Chairman, that I have not given an impression that all health problems are solved, and that the fact that our budget request for fiscal 1955 is substantially below the level of fiscal year 1954, is, in itself, a reflection of the solution of all health problems. We still have many problems in the period ahead. However, we feel that the request we have placed before the committee represents reasonable and appropriate Federal participation in the solution of these problems.

Mr. BUSBEY. Thank you, Dr. Scheele.

OUTLOOK FOR FUTURE FUND REQUESTS BY PROGRAM

Dr. Scheele, would you be in a position to tell the committee which programs will need continuing Federal support at about the current level and which programs we may look forward to as being those for which we might have diminishing requests for funds?

Dr. SCHEELE. Well, Mr. Chairman, that is a very difficult question which you pose. The problems I face in trying to answer you is that there are so many things that we are not doing anything about that it does not come out to be a simple matter of problems disappearing. We still have problems in tuberculosis and venereal diseases. However, these are two examples of problems in which the Public Health Service has determined that, in terms of priority for Federal funds, are far enough along in control to warrant substantial reductions in our support.

In the field of hospital construction work, the actual backlog of need is still great—far greater, of course, than anyone has believed should be supported by Federal grants. We believe the backlog should be met largely by funds from any and all sources other than Federal that might be available for hospital construction.

The hospital survey and construction program which we bring before this committee does not propose to come anywhere near placing Federal participation at the maximum construction that could occur. It represents instead assistance by the Federal Government in the hospital construction area at the level we believe appropriate. As things stand, unless the Congress extends the life of the Hospital Survey and Construction Act, in 3 more years, this program will terminate. So, that there is a time period on that program. As I say, unless the program were extended, one could anticipate that there would not be requests in that field after 3 years.

One of the difficulties that we face in health that makes it difficult to visualize a final solution of all of our problems is that, as we solve some problems, new ones appear. First of all, we have given the mothers who were bearing children better maternity care. We have given better obstetrical care at the time of delivery. We have given better care to the newborn infant and have often saved him from premature death. A large number who would have been expected to die from diarrheal diseases in earlier times are now saved. We thus have been making it possible for life expectancy to increase.

We see this reflected in the fact that in 1900 when our population—national population—was approximately 76 million people, our population, age 65 and over, was approximately 3 million; 50 years later, in 1950, our population had increased to about 151 million, but our population, 65 and over had quadrupled to 12 million. Even if we just stand still in terms of health accomplishments, this process of aging and more people getting into the higher age bracket, is going to continue.

So, we will be creating additional problems, that is additional problems will appear—I do not like to say that we create them—but additional problems appear as a result of the success of the health program at the front end of life.

Of course, there are other things that contribute to this as well, including better economic status of our people, better food and nutri-

tion. These are all factors to which we would not ascribe improved health.

So, I think we can look forward to a need for continuing, if not in some instances increasing, emphasis on the problems of chronic illness and long-term care as one area of continued interest in the future.

DEATH RATE FROM TUBERCULOSIS

Mr. BUSBEY. What has been the change in the death rate from tuberculosis during the past 10 years?

Dr. SCHEELE. I am sorry to say that I do not have those figures. Do you have those figures, Dr. Anderson?

I can get them for you, Mr. Chairman.

Mr. BUSBEY. Of course, that rightfully should be a question to be propounded to the proper division when it comes before the committee, but I was just curious to know what that rate has been.

Dr. SCHEELE. There has been a very substantial reduction; it is down.

Dr. ANDERSON. Dr. Scheele, I think the death rate from tuberculosis in 1940 was about 46 per 100,000 population, and then moving to 1946, it dropped to about 40 per 100,000 and along about 1953 the death rate is anticipated to be about 12 per 100,000 population, this is in contrast with the number of cases of tuberculosis reported which has stayed rather consistent over this period of time at about 120,000 cases reported annually.

So, the drop in mortality has been rather remarkable, but the drop in the number of cases reported of individuals who are ill with the disease has not been reduced appreciably and is related to the efforts of tuberculosis casefinding through X-ray and other diagnostic and control procedures.

Dr. SCHEELE. I think there is a very important point there. One's chances of dying from tuberculosis today are vastly less than they used to be. On the other hand, the problem of incidence is still with us. We are still having tuberculosis, although we have learned how to save lives. We have not as yet been able to eliminate the disease.

MOTOR-VEHICLE ACCIDENTS

Mr. BUSBEY. On pages 3 and 4 of your statement, you refer to motor-vehicle accidents. Does the Public Health Service have plans for getting into this field, Dr. Scheele?

Dr. SCHEELE. No, sir; we do not have, except that we have one man in the Bureau of State Services who is something of an expert on home accidents, and he attended the White House Conference on Highway Safety, but we are not very active in this field.

I presume, if there were an appropriate research project, if someone were to ask the National Institutes of Health to aid in the matter, and their study sections and a council approved it, we would be in a position through grants to aid research in this area. However, this is not an active area of direct operation in the Public Health Service.

In fact, I might say that to me it is somewhat of a travesty that there are not more people in public health and medicine who are concerning themselves with the problem. In saying this, I am not

depreciating at all the wonderful efforts of our law-enforcement agencies and our traffic engineers, and others who are working to make the highway itself safer, improving the direction and control of traffic. There are many problems that we face that require careful health scrutiny.

For instance, there is the problem of the patient who has serious hypertension; the problem of the diabetic; the problem of many people who are today licensed to drive cars who may be hazardous to themselves and others. The extent to which this is a problem has not been adequately studied.

I might say that the one area where we are making a very tiny contribution is in the development of a system of uniform highway accident reporting, a program which our National Office of Vital Statistics has developed with the States. So, for the first time, we are beginning to get some real data that can be studied, to give us some better idea of what the spread in highway accidents is, and what the causes are.

This is, of course, a small program. This is not an epidemiological study in which someone goes out and interviews the survivors of the crash, if they are alive, and tries to determine all the factors involved, but it does give us some data of a type which we have not had in the past.

RELATIONSHIP TO ATOMIC ENERGY COMMISSION IN HEALTH AND MEDICAL RESEARCH AS RELATED TO FISSIONABLE MATERIALS

Mr. BUSBEY. At the bottom of page 7 you state:

> In all its functions, then, the role of the Public Health Service is central in the implementation of the Nation's health policy.

Does not the Atomic Energy Commission do more in the work with fissionable materials that is related to public health and medical research than is delegated to the Public Health Service?

Dr. SCHEELE. Yes, sir.

Mr. BUSBEY. And while you do some research in this, it is divided, and if one could say it is centralized any place, it would be AEC?

Dr. SCHEELE. The word "central" may give the wrong connotation. We did not intend to suggest by use of the word "central" that we were the hub of the wheel around which all health programs of the country revolved, because actually our work in relation to the States is one in which the States are autonomous, and our laws are written to put maximum responsibility in the State.

The hospital survey and construction program, for example, and our State grant programs are examples of programs with maximum State control. What I intended by this was that in general the Public Health Service has a role, some role, in most phases of the problems in the field of health. Our actual operating role is that of doing research, of giving financial assistance, and of giving technical assistance. It certainly is not that of being all things to all people in the health field. There are many other health programs in various parts of the executive branch of the Government in addition to those in the Public Health Service.

CANCER RESEARCH

Mr. BUSBEY. How much does the Atomic Energy Commission spend on cancer research?

Dr. SCHEELE. I am sorry to say that I do not know the current amount. Several years ago the Congress earmarked $5 million.

Mr. BUSBEY. That is quite a sizable sum.

Dr. SCHEELE. They earmarked $5 million, but whether it has continued at that level or gone up or down, I am sorry to say that I do not know.

Their money is spent almost exclusively, or is spent exclusively, in the field of cancer research that is tied to X-rays, neutrons, and atomic energy. Their program is not a broad research program. We have attempted to keep our own program coordinated with their program so that there is not an overlap. We do not give funds, for example, to purchase betatrons. A betatron is one of those instruments that will produce very high energy X-rays in the range of 2 million or 3 million volts. They can provide assistance in an area of that sort, but we deliberately do not enter into that, because they are set up to do that sort of thing.

I should say, also, that quite a bit of their effort, as I understand it, has gone into the development of a number of centers where expensive and elaborate, but necessary, equipment, is tied to the use of radioactive materials, and these other kinds of things used in medical research.

For example, they have a hospital and a laboratory at Brookhaven which is used by a number of universities. They have a similar operation at Oak Ridge, and another one called the Argonne Laboratory, located at the University of Chicago. However, there is no conflict in our two programs, because theirs comes from the focusing of atomic energy on the cancer problem and it is not a broad approach like ours.

STANDARDS AND MONITORING

Mr. BUSBEY. Does not the Atomic Energy Commission also do more in developing standards for safe use of fissionable materials and monitoring their use by nongovernment users than does the Public Health Service?

Dr. SCHEELE. Most of the standards are developed by a Standards Committee, in which the Bureau of Standards plays a very prominent role, and some of our staff does, too.

It is done, actually, by the people on the Standards Committee, and they are mostly people from outside Government, and this, I think, is one of these interesting operations like the standards operations in other areas. Voluntary effort has been the developer of the standard, as against a Government-developed standard. Everyone who can do research contributes information which may be of value to help establish a standard. The Government then uses the standard.

For example, Dr. Egow Lorenz, a biophysicist at the National Cancer Institute, who died about a month ago, has played a very prominent role in the study of the effects of radiation on blood, and his studies have been very basic and very useful to anyone who was going to attempt to establish a certain standard.

Perhaps I should say this off the record.

Mr. BUSBEY. Surely.

(Discussion off the record.)

Dr. SCHEELE. I should say, further, that so far as the Atomic Energy Commission is concerned, it does not do all of the work in the area of monitoring and of protection of the civilian environment.

For example, if one of our universities obtains radioactive isotopes to use in its research or in its treatment of patients, the Atomic Energy Commission is not concerned from a direct control standpoint with what happens if that scientist pours the bottle of remaining material into the drain, or if the patient is eliminating the radioactive material in his urine and that urine it put into the drainage system. They are not concerned with what we do in the Public Health Service in our own use of radioactive isotopes. These are matters for the individuals using them to do something about. So that the Public Health Service role in this field—and this is one that we carry on with the full approval of the Atomic Energy Commission—is one of studying methods of control and helping in monitoring and incorporating programs into the civilian type situations which occur if these materials are used in hospitals and in research laboratories.

In addition, we have played a role, under an agreement with the Atomic Energy Commission, in the actual off-site monitoring during continental atomic tests. In other words, we have gone beyond the immediate areas of the test, and we have the sort of detectives on the scene watching what was going on.

SUPPORT OF MEDICAL RESEARCH—GOVERNMENT AND PRIVATE

Mr. BUSBEY. Doctor, on page 8 in the second paragraph, the second sentence, you state as follows:

Support of medical research from both private and public sources has expanded.

At the request of the committee, the Public Health Service has prepared quite an informative document on this matter. Without objection, we will insert it into the record at this time.

(The matter referred to is as follows:)

MEDICAL RESEARCH FUNDS FROM PRIVATE SOURCES

The data on the attached table show that voluntary health agencies spent about $12.9 million to support medical research in 1952. This compares with $7.9 million in 1951 (as indicated on p. 590 of the hearings before the Appropriations Subcommittee on the Department of Labor-Federal Security Agency appropriations for 1954), and $1.5 million when World War II ended (1945).

This remarkable upsurge of private giving has occurred while Federal appropriations for medical research have increased, a fact tending to show the complementary rather than competing character of governmental and private efforts in this field.

It is important to note that the organizations on the attached table are only one of the forms through which private support for medical research is provided. Others include the large foundtions which depend upon large gifts or endowment income, direct contributions from industry and gifts directly by individuals to research workers and institutions. All of these combined are estimated as providing almost as much for medical research as do the voluntary health agencies.

Total support from all philanthropic sources is estimated at $25 million in 1952.

Medical research funds allocated by voluntary health agencies interested in specific diseases, 1952

American Cancer Society	$4,572,664
Damon Runyon Memorial Fund	1,375,159
American Foundation for the Blind	287,131
National Council to Combat Blindness	33,809
National Society for the Prevention of Blindness	39,908
American Heart Association	1,991,981
Arthritis and Rheumatism Foundation	313,655
Muscular Dystrophy Associations of America	317,000
National Association for Mental Health	71,725
National Foundation for Infantile Paralysis	3,316,853
National Multiple Sclerosis Society	100,360
National Society for Crippled Children and Adults	11,957
National Tuberculosis Association	277,172
Planned Parenthood Federation of America	27,794
United Cerebral Palsy	128,466
Total	12,865,634

Source: Pt. I, hearings before the Committee on Interstate and Foreign Commerce, House of Representatives, 83d Cong., 1st sess., Oct. 1, 2, and 3, 1953, pp. 429 and 430.

Estimates of Medical Research Funds

A. Sources of support for medical research and where research is done

The following table shows the simultaneous growth of support for medical research from each major public and private source since 1940:

Medical research support, 1940–52

[Millions of dollars]

Source	1940		1944		1947		1952	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Government	3	7	10	16	28	32	73	42
Industry	25	55	35	60	35	40	60	35
Philanthropy	12	27	10	16	15	17	25	14
Other nonprofit	5	11	5	8	10	11	15	9
Total	45	100	60	100	88	100	173	100

Source of data:

1. General scientific research and development

British Commonwealth Scientific Office, Science in United States of America, 1952.

Scott, E. W. Applied Research in the United States. National Academy of Science, National Research Council, Publication 210, 1952, and unpublished data of the United States Bureau of the Budget.

Note.—In this area, Defense Department research and development figures were used primarily because they take into account military procurement contracts including research expenditures.

2. Medical research

Expenditures, general:

Schiffers, Who Pays for Medical Research?[1] Medical Economics, volume 28, Shifferes, Who Pays for Medical Research? Medical Economics, volume 28, No. 10, p. 66.

Deignan and Miller, The Support of Research in Medical and Allied Fields for the Period 1946 Through 1951.[2] 115 Science 2987, pages 321–333.

[1] Tabulations from these sources and from the President's Scientific Research Board report (reference 5) are given in the President's Commission on the Health Needs of the Nation, Building America's Health, GPO, 1952, vol. 4, pp. 216–223.

[2] Tabulations from these sources and from the President's Scientific Research Board report (reference 5) are given in the President's Commission on the Health Needs of the Nation, Building America's Health, GPO, 1952, vol. 4, pp. 216–223.

A. M. A. Capitol Clinic, volume 2, No. 41, October 9, 1951.

Expenditures, industrial:

Dunn, C. W. Scientific Research in the Pharmaceutical Industry. Midyear Proceedings of the Pharmaceutical Manufacturers Association, Deceber 11, 1945, pages 116–125.

Smith, Austin. Medical Research. Chapter 2. Lippincott Co., 1946.

Expenditures, foundations and voluntary organizations:

Rich, W. S., and Deardoff, N. R. American Foundations and Their Fields, VI. Raymond Rich Associates, 1948.

Lasker Foundation chart submitted to Senator Tobey, printed in Congressional Record, 82d Congress, 2d session, volume 98, No. 81, May 13, 1952, page A3052.

NOTE.—In this area, National Science Foundation and individual agency data served as basic sources. With respect to medical expenditures, 1947, data gathered by the President's Scientific Research Board were employed, adjusted to show a lower industrial total outlay in light of later estimates.

It is believed that informed judgment applied to these data provide measures of trends and orders of magnitude sufficient for an evaluation of the relative participation of the principal groups in support and performance of research.

The Government total of $73 million for medical research in 1952 is composed of the following parts:

Agency:	*Amount in millions*
Public Health Service	$38.9
Atomic Energy Commission	8.5
Department of Defense	22.1
Veterans' Administration	3.8
Other [1]	.1
Total	73.4

[1] National Science Foundation, $113,000; Tennessee Valley Authority, $8,000.

These figures are accurate enough as orders of magnitude to show both trends and the general level of expenditures. It should be noted, however, that some of these figures must be estimated. Accurate total philanthropic contributions, for example, are difficult to determine because of the large number of gifts made locally. These are difficult to track down. Industrial medical research expenditures are difficult to determine precisely both because many firms are reluctant to state research expenditures and because definitions of research (as contrasted with product control or development, for example) differ.

B. WHERE MEDICAL RESEARCH FUNDS WERE SPENT IN 1952

Kind of laboratory:	*Amount in millions*
Universities, medical schools, and private foundation laboratories, financed by—	
Government	$36
Philanthropy	25
Endowment and other	15
Industry	3
	79
Industrial laboratories, financed by—	
Industry	57
Government	1
	58
Government laboratories, financed by Government	36
Total	173

Mr. BUSBEY. Doctor, I notice in the statement, in regard to the percentage given by Government, industry, philanthropies, and other nonprofit organizations, that the percentage that the Government has given has increased from 7 percent in 1940 to 42 percent in 1952, while the percentage in these other categories of industry, philanthropies, and nonprofit organizations seem to be going down.

In your opening statement you say:

Support of medical research from both private and public sources has expanded—

and then in the last sentence in that paragraph:

It has been stated from time to time that increases in Federal support of research have been paralleled by increases in voluntary support.

Would you explain the situation, Doctor?

Dr. SCHEELE. Well, just looking at the Federal figures alone, these figures represent to me the broadening interest of the Congress in covering a broader spectrum of disease problems and to place funds in research on problems pretty much in line with the importance of the problem.

For example, this committee and the Congress pushed cancer and heart-disease research to the front several years ago, but they have not at the same time been pushing research in the neurological disorders and arthritis, and metabolic disorders. More recently they have been pushing those rather hard also, and that is the reason why we went from the $3 million in 1940 to the $73 million of actual dollars appropriated for research in 1952.

In addition, we have had a substantial increase also because of the decision to develop a research center in the Public Health Service at the National Institutes of Health at the Bethesda location, and I am sure that these other figures do not include—well, they may in the case of industry, they don't include investment in terms of expanded research plant.

In the voluntary field, in the field of cancer, we have had an almost exact paralleling percentagewise in the increase in private giving for cancer research and congressional appropriations.

This is because, I suppose, that the impact of cancer is one that people readily understand, and therefore each year when the Cancer Society has its drive, the people very willingly give to help fight this terrible disease. The Cancer Society has an older history in terms of being an active organization raising funds for research than do some of these others.

The American Heart Association is not a new association, but its expansion, and particularly its expansion into raising funds for use in research, is very recent—it is only 4 or 5 years old.

In the field of poliomyelitis the reverse is the case. The amount of money spent through the Public Health Service or through the Federal Government for support of research in poliomyelitis, if we could pull it all together, would turn out to be a very tiny figure.

On the other hand, the National Foundation for Infantile Paralysis felt early that it had an obligation to support research, and here we might find the ratio would be about 1 to 10,000, or 1 to 100,000, possibly, if we could have the figures pulled together. In other words, they are spending a great deal more than the Government and they have made a lot more progress.

Some of the voluntary agencies have found themselves very much concerned with problems of the type the Polio Foundation is also concerned with—that is, the problem of care of the patient. The foundation provides respirator service and aftercare rehabilitation service for people who have had polio. Whenever one gets into the field of medical service of that kind, it is an expensive thing. But, as I say,

in my opinion, they very wisely began emphasizing research in their opening role in that field.

Some of our voluntary organizations are busy with service programs and have not as yet determined to emphasize research as much as others. That, I am sure, is not a complete or adequate explanation or answer to your question, but to me the important thing is the fact that without reference to which curve went up more steeply there has been a real increased interest among the voluntary groups in putting up money for research.

Mr. BUSBEY. If there is anything which you want to add further to your answer, you may do so when you go over the record.

Dr. SCHEELE. Thank you, sir.

(The following was submitted later:)

On the question of the relative growth of public and private support for medical research, these summary facts are pertinent:

1. Between 1944 and 1952, both private and Federal support of medical research expanded. Federal support increased by 63 million (from 10 to 73 million per year). All private support increased by 50 million (from 50 to 100 million per year).

2. Available evidence indicates that Federal support and private support for medical research have stimulated a larger total national effort and that Federal support has not simply replaced private support. For example, at the recent health inquiry of the House Committee on Interstate and Foreign Commerce (preliminary of March 10, 1954), the following comments of representatives of private agencies were typical: "Public funds in research and training will promote private funds and will double the value of the Government dollar"—President of the National Epilepsy League, Mrs. Ruth McCormick Tankersley. "A query: Does the creation of the National Institute of Neurological Diseases and Blindness and the appropriation for it in any way diminish private effort? Answer: Absolutely no; it only increased it"—president, National Multiple Sclerosis Society, Mr. Carl M. Owen.

3. While both private and Federal support of medical research have expanded the proportion of the total costs of medical research borne by the Federal Government has risen from 16 percent in 1944 to 42 percent in 1952. This means that as all sources of support for medical research were rising Federal support rose more rapidly than the other sources. Creation by Congress of new national medical research institutes, and recognition that even a doubling of private giving could not adequately support medical research, appear to account for the rising Federal share of the increased national effort.

Dr. ANDERSON. Dr. Scheele, I might add a note here, if you would like.

Dr. SCHEELE. Yes, sir.

Dr. ANDERSON. The statement was made concerning the increase in funds.

Funds have increased, both in regard to private philanthropies and industry, and in Government; that is, the funds that are going into research. This is in terms of an increase in dollars.

This may vary very considerable, percentagewise, because you get a different set of figures when you look at it percentagewise, and when you look at it in terms of total number of dollars.

SUPPORT NECESSARY FOR COMPLETE EXPLOITATION OF RESEARCH POTENTIAL

Mr. BUSBEY. Dr. Scheele, on page 8, the last sentence, reads:

But the Nation has not yet made available the full support necessary for complete exploitation of its research potential.

The question that automatically comes to my mind is, What is the full support necessary for complete exploitation of this research potential?

Dr. SCHEELE. I don't think anyone can give a full answer. Our experience in the Public Health Service in reviewing research grants, bears out the fact that there are many good ideas in the minds of scientists on the drawing board, so to speak, that could be attacked if the scientists had the support that they need. This support, in some cases, would be support for their research project, and in a few instances it would be acquisition of the scarce kinds of research workers or other people to balance off some of the teams better, and in other instances research facilities in our universities and elsewhere might require some improvement or some expansion.

In other words, my point is, that we are not at the point of saturation in terms of worthwhile research that can be done, if the Nation saw fit to support a bigger attack on health problems.

ANTICIPATED EFFECT OF RESEARCH ON COST OF CHRONIC DISEASES

Mr. BUSBEY. On page 9 of your statement, you state:

> We confidently expect that discoveries in the medical sciences will enable the Nation to reduce sharply the burden of chronic disease in the next 10 to 25 years, as a result of governmental and voluntary support of research.

There have been tens of millions of dollars spent on this chronic-disease research, and I wonder if you are in a position to tell the committee something of what has resulted from the expenditures of these sums to reduce the burden of chronic diseases?

Dr. SCHEELE. I am not in a very good position, Mr. Chairman, to have those details, and I am not sure whether Dr. Sebrell has them today, but we did come prepared to review with you the broad outline of the accomplishments in the country as a whole.

Mr. BUSBEY. We will hold that until we get to the National Institutes.

Dr. SCHEELE. If you will do that, you will then be talking to some of the men who have better technical competence in these fields than I have, and you will get much more comprehensive answers.

Mr. Harlow reminds me that one of the major chronic diseases in which we have already had some success is in the field of syphilis.

Syphilis has been a tremendous waster of people, and it has accounted for many of the individuals who in former years had to go to mental institutions for the remainder of their lives, with syphilis of the brain.

Today, by modern treatment and use of penicillin and antibiotics, we have that problem at the point where it is substantially reduced.

Mr. BUSBEY. I suppose we might look at syphilis as a chronic disease, but I had always thought of it as a communicable disease.

Dr. SCHEELE. It is communicable. In the case of syphilis it does not start off exactly as an acute disease, although I suppose any sore is an acute phenomenon. If we look at the economic burden of chronic diseases over the years, we will see that syphilis was one of the major costly items that we have had.

ORGANIZATION OF WORK ON COMMUNICABLE DISEASES

Mr. BUSBEY. On page 12 you deal with the appropriation for communicable diseases research and control. We really have 4 separate appropriations in that field—1 for the Institute of Microbiology, 1 for

communicable disease control, 1 for tuberculosis control, and 1 for venereal disease control. What thought has been given to the advantage of combining these four? In your estimation is it practicable to do such a thing?

Dr. SCHEELE. We have, over the years, given serious thought to how we could combine these.

Mr. BUSBEY. To an outsider like myself who is not familiar with the details of the problem, it does seem that there is some duplication and overlapping there which could be avoided if they could be brought together, but on the other hand, there may be some good reason why they should not be.

Dr. SCHEELE. The missions of these organizations have grown to be considerably different, as time has passed, and probably the development of these as categories has been advantageous in that if any one of them had been the only one in existence, some of these other concepts might not have come into being.

Our Microbiological Institute is concerned mostly with research in the laboratory. Its scientists are, in many cases, working on fundamental problems in microbiology. The communicable disease section, on the other hand, was born out of the realization that there was a long period of time elapsing before some of the things which the bench scientists were doing were being applied in the field, and also the fact that very often the fundamental scientist was not thinking about the application aspect of his problem. In other words, that he might make major contributions that would ultimately lead to some tremendous advances. Take, for example, the discovery of penicillin in England. It is a good example of that. When penicillin came out of basic research no one at that time thought it was going to be a cure for syphilis, and yet when Dr. Mahoney, working in our VD laboratory up on Staten Island, N. Y., began working with it as a treatment for syphilis, he discovered that it would work. He was working not only in the laboratory but also on the application end of it.

Our Communicable Disease Center grew initially around two major problems that we had in the South. It grew around malaria as a problem, and around typhus as a problem, down South.

I was just reviewing some material last night, and I was reminded again of the fact that as recently as 1920 we had 100,000 cases of malaria a year, and we had about 5,000 deaths a year from malaria. The Communicable Disease Center, working with the States and helping them do research in the use of DDT and other insecticides, played a major role, and a recognized major role, in wiping malaria out of our country to the point that 2 years ago that when we examined 28,000 blood smears which people in other laboratories and centers had suspected might be malaria, we could verify only 4 or 5 as actual cases.

The health officer of Mississippi a couple of years ago offered to pay $10 to anyone who could bring him a slide showing malaria parasites from a person anywhere in the State of Mississippi. He would not have done that in 1920 or 1940.

The Communicable Disease Center is geared in its thinking and operation to move into these field problems and much of its research is actually developmental research and applied research. This is past history. On the one hand we knew that the DDT would kill insects, but we did not know how to use it, how to put it where the insects

were, and did not know the technical problems involved in regard to how much to use to keep it effective, and how long it would last or even have sprayers that would deliver a measured amount. That is where the technical problems came in that CDC worked on. So, they put a different kind of emphasis on DDT research to discover how it could be used in the civilian communities and particularly in regard to control of those problems which have public-health significance.

Tuberculosis and venereal diseases represent the diseases on which we desired to focus specifically, by giving them special status as programs, and giving them their own appropriation, and, as the chairman of the committee has said, we have been gradually moving downward and downward in those two programs.

Mr. BUSBEY. Well, I certainly would be the first to admit that the men running the Public Health Service are in a much better position to judge the problem than the chairman of this committee, but let us take the field of tuberculosis. There is research being done at the communicable disease center, and also at the microbiological institute, and also under the appropriation for tuberculosis control, and in order to achieve greater accomplishments, it seems to me that these three things could be more centralized to an advantage.

Dr. SCHEELE. Mr. Chairman, I would be the last to say that there are no types of things that the Tuberculosis Control Division or CDC or even VD is doing that are not somewhat like the things that microbiology is doing, but I do believe that there is a very tiny segment of the total operation that is in that category. The bulk of the things they are doing is far different. There has been a great advantage in having that research that has been done in tuberculosis and VD associated, quite directly, with the broader program that was going on. The work in those fields has been much more at the application level than it has gone over into the fundamental studies.

Mr. BUSBEY. Has the Public Health Service ever made a study of this problem?

Dr. SCHEELE. Yes, sir; we have. We have looked at it, and we have looked at our total research program and looked at it in considerable detail, and we have come up with the thought that we believe more would be lost by combination than would be gained.

Mr. BUSBEY. Has any outside group made a study of this situation?

Dr. SCHEELE. No, sir; I do not think so, unless some of the Appropriations Committee investigators who have been up have looked it over. It would be a time-consuming operation—not that that is a reason for not studying it, but it is a complex problem to study. You have to identify the kinds of research and identify almost the personality of the institution to be able to arrive at a decision on the combining of them.

STUDY OF HOSPITAL AND MEDICAL-CARE PROGRAM

Mr. BUSBEY. In the last paragraph on page 18, is the following:

> As the committee is undoubtedly aware, the hospital and medical care program of the Public Health Service is under study by the Secretary of the Department of Health, Education, and Welfare. Mrs. Hobby has stated that no decisions with respect to future legislation proposed by the administration can be reached until the entire program has been evaluated in consultation with the other departments which have special interest in the hospitals and medical-care programs of the Public Health Service.

When do you anticipate that a final decision on that will be reached, Doctor?

Dr. SCHEELE. Mr. Chairman, with your permission, that question might more appropriately be answered by the Assistant Secretary, Mr. Larmon. This study is one being made by the Department, topside, rather than by the Public Health Service.

Mr. BUSBEY. You may proceed, Mr. Larmon.

Mr. LARMON. This refers, Mr. Chairman, to the merchant seamen, I understand?

Mr. BUSBEY. Yes; I would say it would refer principally to the marine hospital situation.

Mr. LARMON. Yes, sir; it is, as the Secretary indicated, to be decided by a group consisting of representatives of the Department of Labor, Department of Commerce, and our own Department, and they are presently studying the whole problem.

I cannot accurately guess the exact time that they will present their recommendations, but they are in the process of discussing it now.

Mr. BUSBEY. Has not this study been going on for some time?

Mr. LARMON. It has, to my recollection, been under study for about 3 months.

Mr. BUSBEY. Well, I recall receiving letters from different people on this matter, almost a year ago.

Mr. LARMON. As I recall it, letters started coming into our office on this subject some time ago.

Mr. BUSBEY. As I recall, that probably was after some statement resulting from comments of the Bureau of the Budget.

Mr. LARMON. It was the result of a statement that appeared in the papers, I believe, in November.

I am not entirely certain of that time, but it was approximately November. There were discussions with these departments, and with the Bureau of the Budget, which resulted in the establishment of this committee. I believe that was approximately 2½ to 3 months ago.

Mr. BUSBEY. You have no idea at the present time when they might arrive at a decision?

Mr. LARMON. I have not, sir.

Mr. BUSBEY. Or, what recommendation they will make?

Mr. LARMON. No, sir.

EFFECT OF PROPOSED LEGISLATION ON BUDGET

Mr. BUSBEY. On page 21 of your statement, Dr. Scheele, in the second paragraph, you state:

> **The Public Health Service budget for existing programs in 1955 totals $191,463,000—a reduction of more than $41 million below the appropriations for 1954. About $22 million of this reduction represents the elimination of funds for the liquidation of contract authorizations.**

The reduction that you speak of in your statement could very readily become an increase, if all of the proposed legislation is enacted, and funds appropriated for that legislation; could it not?

Dr. SCHEELE. Yes, sir; that is correct.

Mr. BUSBEY. How much would the proposed legislation add to the appropriation, say, for the next 10 years?

Have you any estimate on that?

Dr. SCHEELE. There are two items that are of concern to the Public Health Service. One is the item to consolidate the categorical State grants. This does not require any more or less money. It is a proposal for changing of the basic structure under which the grants are given.

The other item is the extension of the Hospital Survey and Construction Act, which would provide $60 million of new annual contract authorization for construction of chronic disease facilities, diagnostic and treatment centers, nursing homes, and rehabilitation facilities.

Since the basic act has a 3-year remaining life, if the Congress were to pass the bill and were to provide an appropriation to the full authorization, it would involve a total cost of $180 million over a 3-year period, plus a one-time appropriation of $2 million in the first year, after the amendment is passed, for grants to States, for State plans, and studies.

In other words, a total of $182 million.

There are other projects in the President's program which have health significance, but they are not projects which would add to the Public Health Service budget. I refer now to the proposal to expand the number of people rehabilitated, and the proposal for the creation of a reinsurance fund.

METHOD OF AMENDING HOSPITAL CONSTRUCTION ACT

Mr. BUSBEY. Doctor, perhaps you can give me the answer which I have been trying to obtain since the legislation authorizing the $60 million for the categorical grants was on the floor.

Frankly, I have not yet been able to find out why that was not accomplished by a simple change in the language of the law, instead of coming in with new legislation?

Dr. SCHEELE. I presume the chairman means accomplishing that by an amendment in a somewhat different form. The proposal is actually a proposed amendment of the basic act.

Mr. BUSBEY. We have a present authorization of $150 million for hospital construction. In the 1955 budget, you have a request for $50 million, which leaves a balance of $100 million of authorization for which there is no requested appropriation.

Now, this legislation that you proposed, which has been reported out of the Interstate and Foreign Commerce Committee, and which has passed the House, called for an authorization of $60 million for categorical grants, in addition to the $150 million.

The answer I have been seeking is, Why could not there have been just a small change in the language of the original act, to make that $60 million available out of the $150 million?

Dr. SCHEELE. I think the best reason, the basic reason, Mr. Chairman, and I do not mean to answer for the President or Mrs. Hobby, but I think one of the basic reasons, as I interpret what went on, was that we are becoming increasingly conscious of the impact of aging and of long-term care.

Mr. BUSBEY. I am just as conscious of that as you are, but that has nothing to do with my question.

Dr. SCHEELE. It is reflected in the increase in research that is being done. The present hospital survey and construction program has not produced any substantial number of beds in the chronic-disease field, for example.

Mr. BUSBEY. I am aware of that.

Dr. SCHEELE. There are only 3,000 new beds.

Mr. BUSBEY. My question is, Why could not that change have been accomplished by asking for a small change in the present law without bringing in new legislation?

Dr. SCHEELE. This is an amendment to the present law. There is not a new, separate part of the Public Health Service Act that would be created by this.

Mr. BUSBEY. But there is no provision that the new part of the program simply be financed with funds available out of the remaining $100 million?

Dr. SCHEELE. No, sir; that is correct.

This was done in my opinion, largely as a means of highlighting this particular problem, and to focus State attention on this increasing problem that they face. Actually, the proposal will not make any great inroads into meeting all of the bed needs of the country. But, through this proposal, emphasis is placed on the fact that we can provide bed care for those people who require bed care, more cheaply through the creation of nursing-home facilities than through general beds.

Mr. BUSBEY. I am aware of that, and I am in sympathy with the result that you are trying to accomplish, but when I look at the related facilities provided under the manuals for hospital construction, and see that they consider cowbarns and the medical center down at Indianapolis and other facilities as related facilities, I think that more thought and consideration should be given to this.

I was in the unfortunate position of being the only one that opposed the legislation on the floor of the House, and I would rather someone else had taken that position, inasmuch as I happen to be the chairman of the subcommittee that handles the appropriation requests for the program.

My opposition to it, I might say, was very sincere and the statements I made in opposition to it were not just made at random, I assure you; because I thought then and still think that the Department should have just asked for a simple change in the language of the existing law. Of course the Committee on Interstate and Foreign Commerce evidently, after hearing witnesses from the Department and others, thought differently about it. But that is what makes this job of being a Member of Congress interesting, I guess.

PUBLIC HEALTH GRANTS-IN-AID, 1940–55

At this point in the record we will insert in the hearings, if there is no objection, the table showing the Federal grant-in-aid funds appropriated for the Public Health Service for the fiscal years 1940 through 1953.

I wonder, Doctor, if we could have added to this table the figures for 1954 and the budget for 1955, so that we will have it as complete as possible.

Mr. HARLOW. Yes, sir.

Mr. BUSBEY. I think it would also be helpful if we had another total column added to this table to include hospital construction.

(The data referred to follow:)

Public Health Service—Appropriations for grants to States, fiscal years 1940–55

Year	Total	Total, exclusive hospital construction	General health	Venereal disease		Tuberculosis control	Cancer control	Mental health	Heart disease	Alaska, disease and sanitation	Hawaii, leprosy	Water-pollution control	Hospital construction
				Formula	Special projects								
1955 (budget estimate)	$71,000,000	$21,000,000	$11,760,000			$2,000,000	$2,250,000	$2,325,000	$1,125,000	$540,000	$1,000,000		$50,000,000
1954	88,626,500	23,626,500	10,135,000		[1] $1,976,500	4,275,000	2,250,000	2,325,000	1,125,000	540,000	1,000,000		65,000,000
1953	110,040,000	35,040,000	13,000,000	$3,525,000	4,525,000	5,300,000	3,050,000	3,100,000	1,500,000	540,000	500,000		75,000,000
1952	120,479,300	37,979,300	13,500,000	3,525,000	5,924,300	5,800,000	3,100,000	3,100,000	1,500,000	630,000		$900,000	82,500,000
1951	125,390,100	40,390,100	13,540,500	5,500,000	5,205,600	6,350,000	3,200,000	3,200,000	1,700,000	694,000		1,000,000	[2] 85,000,000
1950	194,892,117	44,892,117	14,200,000	7,757,000	5,338,000	6,790,000	3,500,000	3,550,000	2,000,000	757,117		1,000,000	[3] 150,000,000
1949	114,680,570	39,680,570	11,214,666	8,800,000	6,046,404	6,790,000	2,500,000	3,550,000		779,500			[3] 75,000,000
1948	114,038,685	39,038,685	11,217,039	8,545,192	6,986,454	6,790,000	2,500,000	3,000,000					[3] 75,000,000
1947	37,802,990	36,002,990	14,250,000	8,764,400	6,108,590	6,880,000							[4] 1,800,000
1946	30,247,876	30,247,876	11,000,000	8,756,876	5,291,000	5,200,000							
1945	21,623,997	21,623,997	11,000,000	9,253,883		1,370,114							
1944	20,431,257	20,431,257	11,000,000	9,431,257									
1943	20,998,099	20,998,099	11,000,000	9,998,099									
1942	18,658,167	18,658,167	11,000,000	7,658,167									
1941	16,481,537	16,481,537	11,000,000	5,481,537									
1940	13,839,836	13,839,836	9,500,000	4,339,836									

[1] Excludes $1,523,500 grants of services and supplies to provide comparability with 1955 budget.
[2] Includes $75 million contract authorization.
[3] Contract authorization.
[4] Grants for surveys and planning.

STATE-FEDERAL RATIO OF PUBLIC HEALTH EXPENDITURES

Mr. BUSBEY. I think also at this point there ought to be added a table showing the percentage which Federal funds constitute of each State's public health expenditures. Would it be possible, Doctor, to add the fiscal year 1953 figures, to the table we have?

Dr. SCHEELE. Yes, sir; they are available. We will add those.

(The matter referred to is as follows:)

Percentage which Federal funds constitute of total public health expenditures [1]

State	Fiscal year 1952	1953 [2]	State	Fiscal year 1952	1953 [2]
	Percent	*Percent*		*Percent*	*Percent*
Total	21.0	20.3	Nevada	53.1	49.3
			New Hampshire	30.3	29.8
Alabama	37.9	36.9	New Jersey	40.3	34.3
Arizona	40.8	34.0	New Mexico	27.7	25.5
Arkansas	53.2	49.3	New York	10.0	9.7
California	9.2	8.7	North Carolina	29.7	27.6
Colorado	29.5	26.6	North Dakota	35.4	34.3
Connecticut	19.8	19.0	Ohio	19.5	16.6
Delaware	36.4	39.5	Oklahoma	32.6	31.7
District of Columbia	18.6	18.2	Oregon	15.7	14.4
Florida	23.5	21.2	Pennsylvania	16.2	22.1
Georgia	27.6	22.5	Rhode Island	34.6	32.6
Idaho	39.2	38.3	South Carolina	40.5	35.7
Illinois	9.9	13.7	South Dakota	48.6	46.0
Indiana	24.7	23.5	Tennessee	33.5	34.0
Iowa	40.4	36.6	Texas	29.9	27.2
Kansas	26.0	23.0	Utah	32.4	27.5
Kentucky	22.1	18.1	Vermont	39.6	37.9
Louisiana	33.4	29.8	Virginia	21.3	19.9
Maine	33.2	31.5	Washington	16.1	13.6
Maryland	14.3	15.5	West Virginia	35.2	31.5
Massachusetts	16.2	17.5	Wisconsin	17.7	15.2
Michigan	14.5	12.0	Wyoming	56.2	55.1
Minnesota	23.0	22.8	Alaska	73.1	73.4
Mississippi	41.9	37.0	Hawaii	13.9	33.4
Missouri	24.1	20.8	Puerto Rico	23.3	21.0
Montana	41.0	42.9	Virgin Islands	57.2	51.0
Nebraska	30.1	27.1			

[1] Excludes amounts identified as general hospital care and hospital construction and expenditures for operation of tuberculosis sanatoria.

[2] Provisional, subject to change when final tabulations are completed.

Source: Report of expenditures for health services—Joint Financial Report Form 11.1 submitted annually by State health agencies to the Public Health Service.

DISCUSSION OF GENERAL AND CATEGORICAL GRANTS

Mr. BUSBEY. Doctor, what is your opinion on the question of general grants versus categorical grants?

Dr. SCHEELE. Well it is our opinion that the categorical grants serve a useful purpose, particularly at the time of the initiation of programs, because they serve to highlight a particular problem and a particular need and provide a rallying point around which the program develops. On the other hand, categorical grants, in the case of grants given to State health departments, has also placed some burden on them in that the decision as to the use of the funds is made in Washington and is not something they can determine based upon their own estimate of needs and priorities. The States have for several years indicated to us at the time of their annual meeting that they would like to see a merging of categorical grants into a general grant program.

We would hope, of course, that the States would continue to carry on categorical programs. For example, we would hope, if the legislative proposal to combine these and eliminate categories were to be approved by Congress, that the States would continue to do cancer, heart, and mental health work; that they would not necessarily stop because the money was given to them without earmarking. We believe that general grants provide the greatest flexibility to the States.

Mr. BUSBEY. But not thinking of the States so much, but thinking of the Federal supervision, do you favor general grants over categorical grants, personally?

Dr. SCHEELE. Yes, sir; I do. We still have supervision in the sense that they must send us a State plan and we have at that point an opportunity to say "Yes" or "No" to parts of their program. Further, in our working relationship with the States in these public-health areas our staffs and their staffs have worked as a team. And if we look at the way they have responded in putting out State and local funds for some categorical areas, I believe the record is a good one and they will continue to do this even though we would put all of these funds in a general category.

Incidentally, looking at our charts which were introduced into the record, the first of the two you just introduced, if you will look there you will see that over the years, particularly the last 4 or 5 years, since 1950, that the general grant is the one that has held up best.

IDENTIFICATION AND VERIFICATION OF EXPENDITURES FROM CATEGORICAL GRANTS

Mr. BUSBEY. I had our clerk ask Mr. Lund for a tabulation to show how much of the categorical grant funds could be identified by the auditors as having been spent on the activities for which they were appropriated. In some cases the report, I must say, was very disappointing.

For instance, I notice on the table under heart diseases that the auditors were only able to check out 9.6 percent for the State of Alabama and in Louisiana 21.2 percent. Then, under cancer control in North Dakota, they could only check out 9 percent of the funds. And these are only a few of many examples.

I think, without objection, I will put this chart in the record along with the covering letter that was sent by Mr. Lund in explanation of this, so that it will be available for future reference of the committee.

(The material referred to is as follows:)

JANUARY 27, 1954.

The data reflected in the attached schedule were obtained from the report of the last completed health services fiscal audit in each State.

The percentage figures indicate the proportion of expenditures from each Federal grant which were made for salaries or other items of expense which were exclusively for only one of the grant-aided programs. Such specialized expenditures (or direct charges) do not, of course, constitute all of the types of proper charges which may be made to a categorical grant. In many of these programs good public health practice calls for the same person to perform activities in more than one program. When this practice is followed, the costs of these services become proper charges against a number of categorical grants. In the case of these multiprogram costs, the auditor from the limited examination he made did not find allocation bases which he felt he could rely on to certify to the expenditures.

Those audits indicated by footnote 1 represent (*a*) audits in which data were found to confirm to the auditor's satisfaction that proper allocations of such costs had been made, and (*b*) audits in which at least 80 percent of the charges to the categorical grant fund were for direct charges or specialized expenditures. This level of direct charges has been confirmed as sufficient to assure that the remaining 20 percent of expenditures will of necessity be for allowable supporting costs.

Those audits indicated by footnote 2 represent for the most part audits in which the auditor was not able on the basis of his examination which was usually confined to fiscal records to determine whether or not expenditures by the State had been properly allocated to the respective categorical grant funds. In some cases the auditor qualified his audit as to the whole amount because he thought that was his responsibility in view of the lack of a regular allocation procedure when he might have been able to accept some percentage of the expenditures as proper specialized costs. The auditor's qualification, however, does not necessarily mean that the expenditures were improper. It means rather that he did not on the basis of his review find a basis satisfactory to him on which he could certify that they were.

In connection with grants for the crippled children program it is appropriate to mention that in March 1950, the Children's Bureau advised all State crippled-children agencies that effective July 1, 1950, at least 80 percent of the Federal and required matching expenditures must be specialized. Therefore, the entries in the crippled children's column which have either a footnote 1 or a percentage figure of 80 or above represent audits which were not qualified for the reason that the State agency met the requirements.

With respect to maternal and child-health program grants, starting in January 1951, State agencies were encouraged to develop plans for the identification of their Federal and required matching expenditures. Effective for the fiscal year 1954 and each subsequent fiscal year, State agencies are required to provide a plan for the allocation of their Federal and required matching expenditures.

As pointed out above the percentage figures in the columns represent that portion of the expenditure of Federal funds which the auditor could identify as specialized. It could be assumed that the balances of the expenditures were for supporting services. Under current regulations, effective July 1, 1953, they would be covered by a validation procedure. Apparently no such validation procedure usable by the auditor was available to him in the qualified audits referred to in the table.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, OFFICE OF FIELD SERVICES, DIVISION OF GRANT-IN-AID AUDITS

Percentage of State expenditures from Federal grants identified by the auditors as direct program costs

State	Year	Cancer control	Tuberculosis control	Venereal disease control	Mental health	Heart disease	Water pollution	Maternal and child health	Crippled children
Alabama	1952	52.5	57.2	46.1	86.8	9.6	100	46.6	(1)
Arizona	1950								(1)
	[1] 1952							(1)	
Arkansas	1950	(1)	(1)	63.8	75.4	(1)	(1)	56.2	(1)
	1951								(1)
California	1952	65.8	(1)	41.4	(1)	66.6	(1)	37.5	100
Colorado	[2] 1951							(2)	(1)
Connecticut	[1] 1952						(1)	(1)	(1)
Delaware	1951	(1)	(3)	(3)	(1)	(3)	100	(3)	(1)
District of Columbia	[1] 1951							(1)	(1)
Florida	1952	(1)	(1)	(1)	(1)	51.4	(1)	(1)	(1)
Georgia	1950	100	100	81.3	100	100	100	79	(1)
Idaho	[2] 1952							(1)	(1)
Illinois	[1] 1951							(1)	
	1952								(1)
Indiana	1951								(1)
	1952	83.2	82.6	88.5	(1)	86.9	83.4	84.2	
Iowa	[2] 1950							(2)	
	1952								(1)
Kansas	[1] 1950							(1)	(1)
Kentucky	[2] 1951						(1)	(2)	(1)
Louisiana	1950	57.5	88.1	75.3		21.2		52.7	89.3
	1952						(1)		
	1953				(1)				
Maine	[1] 1953							(1)	(1)
Maryland	1952	26.9	51.9	89.7	61.7	38.4	(1)	(3)	(1)
Massachusetts	[1] 1952							(1)	(1)
Michigan	[2] 1950				(1)			(1)	
	1952						(1)		(1)
Minnesota	1951	24.2	62.6	34.9	36.5	35.1	91.3	38.8	
	1952								97.1
Mississippi	1952	97.4	63.9	71.8	72.5	50.2	91.7	34	100
Missouri	1951								(1)
	1952	(3)	(3)	(3)	(1)	(1)	(1)	29.8	
Montana	[2] 1951								
	1952				(1)			(3)	(1)
Nebraska	[2] 1951							(3)	
	1950								(1)
Nevada	1953	43.8	37.8	40.8	48	59.3	(1)	47	89.8
New Hampshire	1953	(3)	17.1	0	(1)	45.4	(1)	[4] 10.5	[4] 94.7
New Jersey	1950	(1)	(1)	(1)	(1)	(5)	(5)	(3)	(1)
New Mexico	1950	63	88.5	87.6	94.2	81.1	100	(3)	
	1952								(1)
New York	1949	(3)	(3)	(3)		(5)	(5)	(3)	(3)
	1951				(1)				
North Carolina	[1] 1950							(3)	(3)
North Dakota	1952	9	65	83	88	14	98	93	(1)
Ohio	[2] 1952				(1)			(3)	(1)
Oklahoma	[2] 1951							(3)	(1)
Oregon	[1] 1952							(1)	(1)
Pennsylvania	[2] 1950				(3)				
	1952							(3)	(1)
Rhode Island	[1] 1952							(1)	(1)
South Carolina	[1] 1952							(1)	(1)
South Dakota	[2] 1952							(3)	(1)
Tennessee	1951	90	99	92	100	99	100	48.6	100
Texas	[2] 1950							(1)	(1)
Utah	[2] 1952							66	(1)
Vermont	[1] 1952							27.4	(1)
Virginia	[1] 1950							(1)	(1)
	1953						(1)		
Washington	[2] 1951						(1)	(3)	(1)
West Virginia	1952	100	(3)	(3)	100	(3)	(1)	(3)	(1)
Wisconsin	[2] 1951							55.5	
	1953				(1)				(1)
Wyoming	[2] 1951					(6)		(1)	(1)
Alaska	1952	100	71.4	85.9	67.9	100	100	(1)	(1)
Hawaii	[2] 1952							(1)	79.6
Puerto Rico	[2] 1951							(3)	(1)
Virgin Islands	[2] 1951							(3)	(3)

[1] Audit not qualified (see 3d paragraph of attached letter).
[2] Audits qualified (see 4th paragraph of attached letter).
[3] No grants from 1949 to 1953.
[4] 1951.
[5] Not audited.
[6] No grants until 1952.

Dr. SCHEELE. May I say a word about that?

Mr. BUSBEY. Yes, sir.

Dr. SCHEELE. It has been difficult with the type of accounting system some of the States use to identify the program areas and the expenditure of funds in the program areas in the past. We have been working with them over a period of several years now to improve their performance budgeting. And beginning July 1 of this present fiscal year, the States are required to produce a record of having expended the money in those areas. It must be possible for them to do this from here on in this fiscal year and so long as we have category funds.

Some of the States are doing this now; some have been doing this spontaneously as a part of the normal State procedure, but many of the States were not and we have been assisting them to get the system under way. It costs them something; they have more work and they have some problems. For instance, a public-health nurse for any local health unit which is supported by the State may be a general-purpose nurse, because they could not afford to have a specialist cancer-control nurse, yet she may spend part of her time on cancer. So they have to find some mechanism whereby she divides up her day and get that back to the State health department so that we will be able to identify the use of funds.

Mr. BUSBEY. I am sure the committee is glad to learn this change is to be brought about. I think this table alone is justification for something like that being done.

Dr. SCHEELE. We agree with you completely, Mr. Chairman.

Mr. BUSBEY. What do you estimate the cost would be for the States putting in an accounting system so that we would know where the money has been spent?

Dr. SCHEELE. I do not know whether we have any figures that would help us answer that question. Many of the States have it now. It was a relatively few States up to last July 1 that were not then prepared to do this.

Dr. ANDERSON. The regulations issued about a year ago which required verification of our categorical grants were in that direction and the States are in process of identifying their activities so that more accurate accounting may be reflected.

I do not know how recent Mr. Lund's table is, whether it may reflect audit procedures that are current, or some years back.

Mr. BUSBEY. That is about 2 months old. The table is dated January 27, 1954. So it is comparatively recent.

Mr. HARLOW. Yes, but the activities covered must go back to some time prior to that. They are behind with their audits now in the States.

Mr. BUSBEY. Yes. I am informed that it covered the last audit for each State.

Dr. SCHEELE. They are probably 1951 and 1952 and in a few instances 1953.

Mr. BUSBEY. Of course the States would not be put to this extra expense, except for special projects, if all grants were put in the general appropriation; is that correct?

Dr. SCHEELE. That is correct. We still would have to audit their expenditure of funds, however.

Mr. BUSBEY. What is the legal situation in regard to the States spending these funds without accounting for the expenditures, Doctor?

Dr. SCHEELE. Well our regulations did not require program budgeting until last July 1, so actually they were legal in the sense of accepting them and expending them, and we hope that a very careful study of their programs would reveal they have actually spent them for cancer, or heart, or mental health.

Mr. BUSBEY. I might explore one or two examples, when we have hearings with the various divisions, where I am sure the funds were illegally spent. And I am inclined to think that the people who did it knew it at the time.

STAFFING PATTERN REGARDING COMMISSIONED OFFICERS

Now looking at the table, prepared on January 26 of this year, showing the numbers of commissioned officers in the Public Health Service, both regular and reserve, I note the grade of colonel has had a phenominal rise, going from 76 in 1944 to 93 the next year, then to 101, to 110, to 136, to 158, to 243, to 252, to 301, to 359 and finally, in 1954, to 390; whereas the trend seems to be just the opposite in the lower grades. I will insert these tables in the record at this point, if there is no objection.

(The tables referred to follow:)

Regular Corps Officers, Public Health Service

Grade	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Surgeon General (major general)	1	1	1	1	1	1	1	1	1	1	1
Deputy Surgeon General (major general)						1	1	1	1	1	1
Deputy Surgeon General (brigadier general)	1	1	1	1	1						
Assistant Surgeon General (major general)						3	3	3	5	6	6
Assistant Surgeon General (brigadier general)	5	7	8	9	9	7	11	10	7	7	7
Director grade (colonel)	74	87	97	108	135	156	237	242	292	341	365
Senior grade (lieutenant colonel)	111	112	158	164	170	205	292	320	361	368	338
Full grade (major)	179	220	239	241	265	276	268	261	262	221	227
Senior assistant grade (captain)	161	161	214	168	216	328	281	359	350	338	276
Assistant grade (first lieutenant)	64	7	65	87	102	89	61	20	42	27	11
Junior assistant grade (second lieutenant)			25	20	14	20	35	40	8	3	1
Total on duty	596	596	808	799	913	1,086	1,190	1,257	1,329	1,313	1,233
Total authorized by law	598	650	902	1,021	1,246	1,456	1,456	1,500	1,500	1,500	1,500

NOTE.—These dates are January 1 of each year.

Reserve Corps Officers, Public Health Service

Grade	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Director grade (colonel)	2	6	4	2	1	2	6	10	9	18	25
Senior grade (lieutenant colonel)	40	48	63	57	62	54	82	81	107	133	129
Full grade (major)	185	353	472	214	147	159	172	194	242	224	212
Senior assistant grade (captain)	555	848	863	298	294	297	296	340	462	588	575
Assistant grade (first lieutenant)	693	592	595	363	465	523	377	253	315	272	279
Junior assistant grade (second lieutenant)		30	293	175	131	51	75	95	93	59	161
Total on duty	1,475	1,877	2,290	1,109	1,100	1,086	1,008	973	1,228	1,294	1,281

NOTE.—These dates are January 1 of each year.

Commissioned Corps (Regular and Reserve), Public Health Service

Grade	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Surgeon General (major general)	1	1	1	1	1	1	1	1	1	1	1
Deputy Surgeon General (major general)						1	1	1	1	1	1
Deputy Surgeon General (brigadier general)	1	1	1	1	1						
Assistant Surgeon General (major general)						3	3	3	5	6	6
Assistant Surgeon General (brigadier general)	5	7	8	9	9	7	11	10	7	7	7
Director grade (colonel)	76	93	101	110	136	158	213	252	301	359	390
Senior grade (lieutenant colonel)	151	160	221	221	232	259	374	401	468	501	467
Full grade (major)	364	573	711	455	412	435	440	455	504	445	439
Senior assistant grade (captain)	716	1,009	1,077	466	510	625	577	699	812	926	851
Assistant grade (first lieutenant)	757	599	660	450	567	612	438	273	357	299	290
Junior assistant grade (second lieutenant)		30	318	195	145	71	110	135	101	62	62
Total on duty	2,071	2,473	3,098	1,908	2,013	2,172	2,198	2,230	2,557	2,607	2,514

NOTE.—These dates are January 1 of each year.

Mr. BUSBEY. How do you account for the disproportionate increase in the high grades, Doctor?

Dr. SCHEELE. I would account for that in the changing program of the Public Health Service. The new responsibilities that have come to us have given us positions which rate at that higher level. We also have a grading system. Each position is reviewed as a position so that there is a relationship one to another in terms of what is required, in terms of work performance, in terms of training and past work experience.

For example, as we have taken on an increasing mission for the Foreign Operations Administration, we have had to provide health mission chiefs for 22 or 23 countries. Those are senior positions and they rate a colonel or equivalent grade.

Mr. BUSBEY. You are reimbursed by the FOA for those?

Dr. SCHEELE. Yes, sir, we are; yet they show in our commissioned corps.

Mr. BUSBEY. What happens to those positions when FOA no longer reimburses you and this highly technical service that rates these grades no longer exists?

Dr. SCHEELE. Well we have a system of regular promotion and then there is also a system of temporary promotion, depending on the position to which the individual is assigned. If these individuals here can rate the equivalent of major or lieutenant colonel in their ordinary right, which is based on the number of years they have been out of school, and so forth, they will revert to those grades. If there is a position which would use their talents at a higher level, they may be put into that position and retain the higher grade.

We believe our system is objective and fair. There has been some movement upward, particularly in the M. D. group over the years that the chairman has mentioned, just by virtue of recognition of the training and experience. There has been upward grading of some individuals because they spent more time in college than others; that is not only true of M. D.'s but tends to be true in the other categories.

We believe this reflects a proper grading and grade structure. We are not like the military organization, a company or military unit, that has enlisted men and officers. There you can get into the kind of grade structure of so many privates, corporals, sergeants, second lieutenants, and the thing figures out very nicely on a ratio basis.

But in our particular case our missions are essentially all officer missions and there are not any enlisted men under them to use as a standard in comparing us, let us say, with the military service.

CLOSING OF MARINE HOSPITALS

Mr. BUSBEY. I believe you stated you had closed six hospitals.

Dr. SCHEELE. Yes, sir.

Mr. BUSBEY. Which six were those?

Dr. MASUR. We have closed Mobile, Ala.; Portland, Maine; Kirkwood, Mo.; San Juan, P. R.; Cleveland, Ohio; and Fort Stanton, N. Mex.

Mr. BUSBEY. What happened to the personnel that was assigned to those hospitals?

Dr. SCHEELE. The personnel in the case of professional people in some instances left the Public Health Service; in other instances they stayed in out-patient offices or they were sent to other hospitals where we had vacancies for them. In the case of nonprofessional service, we made a sincere effort to place them in normal vacancies that we have occurring in the other hospitals and also in the entire Public Health Service, which was the area to which they could go if they wished to leave the towns they were living in. Of course, many of the subprofessionals preferred to remain in their home communities.

In Mobile, for example, to relieve this sudden impact which came on the lives of those people being without jobs, we sent some personnel people down there who worked with the local business people, chambers of commerce, and others to identify jobs that might be available in the community so that the minimum of impact would be suffered. We did offer these people, however, to the extent we could use them, first choice on the vacancies we had. We did not double up the staff; because we had closed a hospital here, we did not double up in another hospital by moving that staff in there.

Mr. BUSBEY. Could you furnish for the record the number of positions that were made vacant by the closing of these six hospitals, the number of persons transferred to other positions, and the net reduction?

Dr. SCHEELE. Yes, sir.

(The requested information follows:)

Positions eliminated from closed hospitals

Positions eliminated by the closure of 6 hospitals	−705
Positions required to staff 5 clinics in locality of closed hospitals	+106
Net reduction of positions	−599

LOCATION OF HOSPITAL AT KIRKWOOD, MO.

Mr. BUSBEY. Speaking of the hospital at Kirkwood, I looked over that situation last summer. When was that hospital completed?

Dr. SCHEELE. We would have to check on that.

Mr. BUSBEY. It is a comparatively new hospital, I would say.

Dr. SCHEELE. Yes, sir, it is quite a new hospital.

Mr. BUSBEY. The thing that puzzled me a little bit was why Kirkwood was selected for the location of a hospital in the first place.

Dr. SCHEELE. I am sorry to say I do not know the history of the selection of that site, but I think Dr. Hunt or someone who will be available later may know.

Dr. DEARING. I might say that the hospital in St. Louis was developed to take care of the large number of personnel engaged in river traffic, or right along the river bank in a very poor part of the town right next to the stockyards, and was a very undesirable location as the city had grown up. And around 20 years ago, when Congress was interested in getting the hospital out of that area, which was shortly before the war, the Kirkwood hospital was built to get out of this depressed and rather unhealthy area and also as part of the St. Louis program to clean up the river embankment, and they moved out to this suburban area which was considered to be a more desirable location.

Mr. BUSBEY. I am very appreciative of the advisability of moving the hospital out of a location such as you describe to a better location, but Kirkwood, Mo., certainly is not a very convenient place for people working on the river to get to, by any stretch of the imagination.

Dr. DEARING. I must say it did not prove to be as accessible, which was long before my time, too, and the Administrative Board of the Public Health Service were not too happy about it, because some seamen were complaining about having to go out that far.

Mr. BUSBEY. That is probably the most inaccessible place they could have located a hospital around the St. Louis section.

Dr. DEARING. It comes very close to it.

Dr. SCHEELE. We have a few other hospitals which are away from the center of the city, but they do not have the same transportation problems. Patients in St. Louis go to our outpatient office downtown, now.

Mr. BUSBEY. I will say, at first blush, my thinking on it would be that certainly the hospital should have been closed; actually, it should never have been built at that location in the first place.

Dr. SCHEELE. May I backtrack on one of the questions you asked me a short time ago?

As we talked here, I was reminded that we do continue to provide emergency services and outpatient service to our beneficiaries in these communities in which we have closed hospitals, and many of the professional staff—maybe I should not say many, but some of the professional staff—who were released from the direct hospital operation remained in those outpatient facilities. Of course, these are skeleton staffs compared to the larger staffs of the closed hospitals. So they have absorbed some of the people.

Mr. BUSBEY. How many of the personnel at the hospital lived on the grounds? I noticed the homes that were built were exceptionally nice homes. I would like to live in one like them myself.

Dr. SCHEELE. I guess probably eight or so of the professional people. Then there was the nurses' home there. I do not know what the occupancy of the nurses' home was.

Mr. BUSBEY. I was not thinking so much about the nurses as about the officers. How many of the officers of the hospital were retained for the outpatient center in St. Louis?

Dr. SCHEELE. We will show that in this table we will give you, if we may.

DISPOSITION OF CLOSED HOSPITALS

Mr. BUSBEY. Now what do you contemplate doing, or what have you done, with these six hospitals you have closed?

Dr. SCHEELE. The one at Kirkwood went into the surplus-property-disposal procedures and has now been picked up by a voluntary organization, and is used as a general hospital, I believe.

Mr. HARLOW. It is used as a district hospital.

Mr. BUSBEY. Was that hospital sold to some private interest?

Dr. SCHEELE. No, sir. Under the Surplus Property Act, the usual procedure for disposal is to give first call to all of the Federal agencies that might have a need for it; next, to the State or local governmental agencies; and then, in the case of health facilities, they may be picked up at no cost by voluntary institutions that will use them for a health purpose.

Mr. BUSBEY. For what is that hospital being used at the present time?

Dr. SCHEELE. It continues on as a general hospital.

Mr. BUSBEY. When I was there in the latter part of September, it was entirely closed, was locked up.

Dr. SCHEELE. We kept it open, that is, kept part of it open to use as an outpatient office, because we had great difficulty in finding rental space in downtown St. Louis. Then after we found rental space, the turnover was made, and you probably were there shortly after we had moved our outpatient facility out of there and when the final negotions for disposal of the property were underway.

Mr. BUSBEY. Who is operating it now?

Dr. MASUR. The Sisters of St. Joseph of Corondelet, to whom it was made available after it had been made available to the local State agencies and local educational agency.

Mr. BUSBEY. What about the other five hospitals that have been declared surplus?

Dr. SCHEELE. We have not made disposition of the one in Mobile. I think we have been unable to find rental space and are using a portion of the hospital as an outpatient office, but it will be surplus just as soon as we can place it at some other place.

The Fort Stanton Hospital was turned over to the State and is now operating as a State tuberculosis hospital. This was a transition that worked out ideally, as a matter of fact. Our patients left and the State has been putting State tuberculosis patients in and are using the facility to the maximum as a hospital facility.

Dr. MASUR. The same is true about the others. They are still hunting for space and hope to be able to move in the near future. Two have been disposed of and the others they are still using a part of for clinical purposes because of the lack of available space thus far in town.

Dr. SCHEELE. It is our policy to get our staff and outpatient facilities out just as soon as we can, because we do not like to have potential bed space which most communities need and can use usefully, sitting around unused.

Mr. BUSBEY. That was in my mind, too, especially since we are asked to approve the appropriations under the Hill-Burton Act for additional hospital beds every year.

PUBLIC HEALTH PERSONNEL PAID FROM OTHER FUNDS

Regarding the personnel that is paid for by FOA and other agencies, we will insert in the record this table showing the distribution of such personnel by division and by the funds from which they are paid.

(The table above referred to is as follows:)

Public Health Service—Positions financed by other than HEW funds, 1954 (excludes positions in activities financed jointly by appropriation and reimbursement, where individual positions cannot be designated as supported from either source)

Account, organization, and title	Grade [1]	Number of positions
ASSISTANCE TO STATES, GENERAL, PUBLIC HEALTH SERVICE		
Personnel assigned to Institute of Inter-American Affairs:		
Commissioned officer	Director	6
Do	Full	1
Dental officer	Class 4	1
Engineer	Class 4	2
Nurse	Class 4	3
Public health program specialist	Class 4	2
Scientist	Class 4	1
Engineer	Class 3	4
Medical officer	Class 3	8
Engineer	Class 2	1
Total		29
ENGINEERING, SANITATION, AND INDUSTRIAL HYGIENE, PUBLIC HEALTH SERVICE		
Technical assistance and consultation services on sanitation problems provided to other agencies:		
Engineer	GS–13	1
Commissioned officer	Senior	1
Do	Senior Assistant	1
Do	Assistant	2
Total		5
Technical assistance to Army Corps of Engineers on biological survey problems of Missouri River: Scientist.	GS–13	1
Studies for Atomic Energy Commission on problems of bacterial and chemical contaminants: Scientist.	GS–12	1
HOSPITALS AND MEDICAL CARE, PUBLIC HEALTH SERVICE		
Personnel detailed to other Federal agencies at their request on a reimbursable basis:		
Medical officer	GS–13	2
Financial operations assistant	GS–7	1
Nurse	GS–7	1
Do	GS–5	3
Clerical assistant	GS–4	1
Commissioned officer	Director	9
Do	Senior	14
Do	Full	19
Do	Senior assistant	100
Do	Assistant	22
Total		172
Operation of health units upon request of other agencies on reimbursable basis:		
Nurse	GS–11	1
Do	GS–9	3
Do	GS–7	25
Clerical assistant	GS–5	1
Nurse	GS–5	23
Clerical assistant	GS–4	2
Medical staff technician	GS–4	1
Clerical assistant	GS–3	1
Housekeeping assistant	CPC–2	6
Commissioned officer	Senior	2
Do	Senior assistant	3
Total		68

[1] Classes listed are grades established by act of Aug. 13, 1946 (22 U. S. C. 867).

Public Health Service—Positions financed by other than HEW funds, 1954 (excludes positions in activities financed jointly by appropriation and reimbursement, where individual positions cannot be designated as supported from either source)—Con.

Account, organization, and title	Grade [1]	Number of positions
MENTAL HEALTH ACTIVITIES, PUBLIC HEALTH SERVICE		
Assignments to the District of Columbia juvenile court for provision of psychiatric services:		
Psychologist	GS–12	1
Clerical assistant	GS–5	1
Commissioned officer	Senior assistant	1
Total		3
SALARIES AND EXPENSES, PUBLIC HEALTH SERVICE		
Personnel detailed to other agencies at their request on reimbursable basis:		
Commissioned officer	Director	17
Do	Senior	4
Total		21
AMERICAN SECTIONS, INTERNATIONAL COMMISSIONS, STATE (TRANSFERRED TO HEALTH, EDUCATION, AND WELFARE, PUBLIC HEALTH SERVICE)		
Personnel assigned to make sanitation surveys of international boundary waters and air pollution survey in the area of Detroit and Windsor:		
Scientist	GS–9	1
Maintenance craftsman	GS–5	1
Clerical assistant	GS–4	1
Commissioned officer	Senior	2
Do	Full	1
Do	Senior Assistant	1
Total		7
EMERGENCY MIGRATION, EXECUTIVE (TRANSFERRED TO HEALTH, EDUCATION, AND WELFARE, PUBLIC HEALTH SERVICE)		
Health examinations given abroad to persons otherwise eligible for visas under the Refugee Relief Act of 1953:		
Administrative staff assistant	GS–9	2
Clerical assistant	GS–4	2
Commissioned officer	Director	2
Do	Senior	1
Do	Full	1
Do	Senior assistant	6
Medical staff technician	Ungraded	7
Visa examination aide	do	7
Total		28
SALARIES AND EXPENSES, BUREAU OF PRISONS (TRANSFERRED TO HEALTH, EDUCATION, AND WELFARE, PUBLIC HEALTH SERVICE)		
Medical services furnished to the Department of Justice at institutions operated by the Bureau of Prisons:		
Medical officer	GS–12	1
Dental officer	GS–11	1
Medical staff assistant	GS–11	3
Administrative officer	GS–9	1
Medical staff assistant	GS–9	2
Medical staff technician	GS–9	6
Nurse	GS–9	2
Property management specialist	GS–9	1
Medical staff technician	GS–8	20
Administrative staff assistant	GS–7	2
Laboratory technician	GS–7	4
Medical staff technician	GS–7	65
Nurse	GS–7	3
Hospital attendant	GS–6	1
Administrative staff assistant	GS–5	2
Financial operations assistant	GS–5	1
Medical staff technician	GS–5	2
Nurse	GS–5	6
Property management assistant	GS–5	1
Clerical assistant	GS–4	2
Financial operations assistant	GS–4	1
Commissioned officer	Director	12
Do	Senior	15
Do	Full	12
Do	Senior assistant	44
Do	Assistant	1
Do	Junior assistant	1
Total		212

[1] Classes listed are grades established by act of Aug. 13, 1946 (22 U. S. C. 867).

Public Health Service—Positions financed by other than HEW funds, 1954 (excludes positions in activities financed jointly by appropriation and reimbursement, where individual positions cannot be designated as supported from either source)—Continued

Account, organization, and title	Grade [1]	Number of positions
CONSOLIDATED WORKING FUND		
Medical examinations of agricultural workers from Mexico, financed by funds appropriated to the Department of Labor:		
Administrative staff assistant	GS-7	2
Nurse	GS-7	5
Repairman	GS-5	2
Medical staff technician	GS-4	3
Clerical assistant	GS-4	1
Medical staff technician	GS-3	7
Clerical assistant	GS-3	3
Commissioned officer	Director	1
Do	Senior	1
Do	Full	2
Do	Senior assistant	4
Total		31
CORPORATE FUNDS, THE INSTITUTE OF INTER-AMERICAN AFFAIRS, FOA (ALLOCATED WORKING FUND TO HEALTH, EDUCATION, AND WELFARE)		
Personnel detailed to Central and South American countries under the point 4 program:		
Statistician	Class 4	5
Do	Class 3	3
Total		8
MAINTENANCE AND OPERATION, AIR FORCE (ALLOCATED WORKING FUND)		
Development for Air Force of techniques for radioactive assay of water:		
Scientist	GS-12	1
Research technician	GS-5	1
Do	GS-2	1
Commissioned officer	Senior	1
Do	Senior assistant	1
Total		5
NAVAL WORKING FUND (ALLOCATED WORKING FUND)		
Research for Navy on addiction liability of synthetic analgesics:		
Medical staff technician	GS-5	6
Research technician	GS-4	2
Security aide	CPC-5	1
Total		9
RESEARCH AND DEVELOPMENT, AIR FORCE (ALLOCATED WORKING FUND)		
Toxicity studies for Air Force:		
Scientist	GS-7	1
Clerical assistant	GS-4	1
Research technician	GS-3	1
Total		3
RESEARCH AND DEVELOPMENT, ARMY (ALLOCATED WORKING FUND)		
Research for Army on therapy of ionizing radiation:		
Scientist	GS-9	1
Research technician	GS-7	1
Do	GS-5	2
Do	GS-4	1
Do	GS-1	1
Animal caretaker	CPC-3	1
Total		7

[1] Classes listed are grades established by act of Aug. 13, 1946 (22 U. S. C. 867).

Public Health Service—Positions financed by other than HEW funds, 1954 (excludes positions in activities financed jointly by appropriation and reimbursement, where individual positions cannot be designated as supported from either source)—Continued

Account, organization, and title	Grade [1]	Number of positions
RESEARCH AND DEVELOPMENT (ALLOCATED WORKING FUND)—continued		
Research for Army on influenza, serum hepatitis, and malaria:		
Medical staff technician	GS-7	1
Statistician	GS-7	1
Medical staff technician	GS-6	1
Research technician	GS-6	1
Laboratory technician	GS-5	1
Research technician	GS-5	2
Clerical assistant	GS-4	1
Do	GS-3	3
Medical aide	GS-3	1
Laboratory technician	GS-1	1
Commissioned officer	Director	1
Do	Senior assistant	5
Nurse	Ungraded	1
Total		20
Research for Army on protein content:		
Scientist	GS-12	1
Research technician	GS-5	2
Clerical assistant	GS-3	1
Total		4
RESEARCH, NAVY (ALLOCATED WORKING FUND)		
Research for Navy on respiratory functions of underwater swimmers: Research technician.	GS-7	2
Total		2
—— (ALLOCATED WORKING FUND)		
Microorganism studies for Department of Defense:		
Research technician	GS-7	1
Do	GS-5	1
Clerical assistant	GS-3	1
Laboratory technician	GS-3	1
Research technician	GS-3	1
Do	GS-1	1
Animal caretaker	CPC-3	2
Commissioned officer	Director	1
Do	Full	1
Total		10
ADMINISTRATIVE EXPENSES, MUTUAL SECURITY ACT (TRANSFER TO HEALTH, EDUCATION, AND WELFARE)		
Division of International Health:		
Public health program specialist	GS-12	1
Educationist	GS-11	1
Public health program specialist	GS-9	1
Administrative staff assistant	GS-7	1
Clerical assistant	GS-5	5
Do	GS-4	3
Commissioned officer	Director	1
Do	Senior	1
Total		14
National Office of Vital Statistics: Statistician	GS-13	1
Total		1

[1] Classes listed are grades established by act of Aug. 13, 1946 (22 U. S. C. 867).

Public Health Service—Positions financed by other than HEW funds, 1954 (excludes positions in activities financed jointly by appropriation and reimbursement, where individual positions cannot be designated as supported from either source)—Continued

Account, organization, and title	Grade [1]	Number of positions
ECONOMIC AND TECHNICAL ASSISTANCE, DEFENSE SUPPORT, ASIA AND PACIFIC, OTHER THAN FORMOSA AND THE ASSOCIATED STATES OF CAMBODIA, LAOS, VIET-NAM, EXECUTIVE (TRANSFERS TO HEALTH, EDUCATION, AND WELFARE)		
Division of International Health:		
Public health program specialist	GS-14	1
Educationist	GS-11	1
Administrative staff assistant	GS-7	1
Public health program specialist	GS-5	1
Clerical assistant	GS-5	1
Do	GS-4	8
Do	GS-3	5
Do	GS-2	1
Commissioned officer	Director	1
Do	Senior	3
Do	Full	1
Total		24
Personnel detailed to Asia and Pacific area point 4 program:		
Commissioned officer	Director	6
Do	Senior	15
Do	Full	15
Do	Senior assistant	2
Sanitarian	Class 5	1
Engineer	Class 4	4
Medical officer	Class 4	1
Property management specialist	Class 4	1
Sanitarian	Class 4	2
Scientist	Class 4	2
Engineer	Class 3	5
Medical officer	Class 3	4
Nurse	Class 3	1
Engineer	Class 2	3
Medical officer	Class 2	2
Do	Class 1	1
Total		65
ECONOMIC AND TECHNICAL ASSISTANCE, NEAR EAST AND AFRICA, EXECUTIVE (TRANSFER TO HEALTH, EDUCATION, AND WELFARE)		
Division of International Health:		
Educationist	GS-11	1
Administrative staff assistant	GS-5	1
Public health program specialist	GS-5	1
Clerical assistant	GS-4	2
Commissioned officer	Director	1
Do	Senior	2
Total		8
National Office of Vital Statistics:		
Statistician	GS-9	1
Clerical assistant	GS-4	1
Total		2
Personnel detailed to Near East and Africa under point 4 program:		
Medical staff technician	Class 7	1
Nurse	Class 7	1
Engineer	Class 6	1
Sanitarian	Class 6	2
Engineer	Class 5	4
Nurse	Class 5	6
Public health program specialist	Class 5	2
Sanitarian	Class 5	4
Engineer	Class 4	9
Medical officer	Class 4	15
Nurse	Class 4	22
Pharmacist	Class 4	2
Sanitarian	Class 4	17
Scientist	Class 4	4
Statistician	Class 4	2
Administrative officer	Class 3	1
Architect	Class 3	1
Engineer	Class 3	5
Medical officer	Class 3	14

[1] Classes listed are grades established by act of Aug. 13, 1946 (22 U. S. C. 867).

Public Health Service—Positions financed by other than HEW funds, 1954 (excludes positions in activities financed jointly by appropriation and reimbursement, where individual positions cannot be designated as supported from either source)—Con.

Account, organization, and title	Grade [1]	Number of positions
ECONOMIC AND TECHNICAL ASSISTANCE, NEAR EAST AND AFRICA, EXECUTIVE (TRANSFER TO HEALTH, EDUCATION, AND WELFARE)—con.		
Personnel detailed to Near East and Africa—Continued		
Nurse	Class 3	6
Public health program specialist	Class 3	1
Scientist	Class 3	2
Statistician	Class 3	4
Engineer	Class 2	1
Medical officer	Class 2	4
Do	Class 1	3
Total		134
MUTUAL DEFENSE FINANCING DEFENSE SUPPORT, ECONOMIC AND TECHNICAL ASSISTANCE, FORMOSA AND THE ASSOCIATED STATES OF CAMBODIA, LAOS, AND VIET-NAM, EXECUTIVE (TRANSFERS TO HEALTH, EDUCATION, AND WELFARE)		
Division of International Health:		
Educationist	GS-11	1
Administrative staff assistant	GS-9	1
Do	GS-7	1
Organization and methods examiner	GS-7	1
Administrative staff assistant	GS-5	1
Clerical assistant	GS-5	1
Educationist	GS-5	1
Clerical assistant	GS-4	2
Do	GS-3	3
Total		12
Personnel detailed to Formosa, etc., under point 4 program:		
Commissioned officer	Director	4
Do	Senior	11
Do	Full	10
Do	Senior assistant	2
Total		27
TECHNICAL ASSISTANCE, AMERICAN REPUBLICS AND NON-SELF-GOVERNING TERRITORIES OF THE WESTERN HEMISPHERE, EXECUTIVE (TRANSFERS TO HEALTH, EDUCATION, AND WELFARE)		
Division of International Health:		
Educationist	GS-11	6
Clerical assistant	GS-4	5
Do	GS-3	1
Commissioned officer	Senior	1
Total		13
National Office of Vital Statistics:		
Educationist	GS-11	1
Administrative staff assistant	GS-7	1
Clerical assistant	GS-5	1
Total		3

[1] Classes listed are grades established by act of Aug. 13, 1946 (22 U. S. C. 867).

REGULAR EMPLOYEES STATIONED ABROAD

Mr. BUSBEY. How many of the Public Health personnel, paid from funds appropriated directly, are stationed abroad as of this date?

Dr. SCHEELE. We will have to produce that figure for you. We do not have it with us.

Mr. BUSBEY. I think it might be well, when you make up that list for the record, if you would give the job title, the grade, salary, and the station of each, with a brief statement as to the reason for having him there.

(The requested information follows:)

Public Health Service personnel paid from funds appropriated to PHS and stationed in foreign countries as of Mar. 1, 1954

Title	Grade	Salary	Appropriation	Location	Reason
Senior assistant surgeon (R).	Senior assistant	$7,274	Cancer	England	Study of methods used in British laboratories in the field of therapeutic radiology—future application in clinical centers. Assignment now completed and employee en route back to States.
Surgeon (R)	Full	8,013	Arthritis	Peru	Burn and shock research project; the wide household use of gasoline and kerosene and the unusually high incidence of burn and shock conditions in Peru offer study opportunities not available in this country, or for that matter in many other countries of the world.
Senior scientist	Senior	7,907	Microbiology	Brazil	Cooperative studies with Pan American Sanitary Bureau on field research on various tropical diseases.
Do	do	8,441	do	do	
Senior assistant surgeon.	Senior assistant	6,918	do	Panama	Cooperative study with Gorgas Memorial Laboratory on dengue fever and other viral diseases.

Public Health Service—Personnel paid from funds appropriated to the Public Health Service and stationed in foreign countries as of Mar. 1, 1954 [1]

Title	Grade	Salary and living allowance	Appropriation	Location	Reason
Medical Director, full-time		$11,417 2,610	Foreign Quarantine Service	Paris, France	Medical examination of visa applicants in foreign countries. The basic authority for this function is contained in sec. 325 of Public Law 410.
Senior assistant surgeon, full-time		8,190 2,610	do	do	Do.
Medical officer, full-time	GS-13	8,360 3,300	do	do	Do.
Administrative officer, full-time	GS-11	6,940 3,305	do	do	Do.
Administrative assistant, full-time	GS-9	5,185 2,720	do	do	Do.
Clerk-stenographer, full-time	GS-4	3,415	do	do	Do.
Do	GS-4	3,175	do	do	Do.
Accounting clerk, full-time	Ungraded, alien	2,212	do	do	Do.
Visa examination aide, full-time	do	2,392	do	do	Do.
Medical X-ray technician, full-time	do	1,666	do	do	Do.
Clerk-stenographer, part-time	GS-4	1,747	do	do	Do.
Senior surgeon (R), full-time		9,285 1,566	do	London, England	Do.
Medical officer, full-time	Ungraded, alien	5,800	do	do	Do.
Visa examination aide, full-time	do	1,722	do	do	Do.
Medical X-ray technician, full-time	do	2,072	do	do	Do.
Medical director, full-time		12,130 2,482	do	Naples, Italy	Do.
Medical X-ray technician, full-time	Ungraded, alien	1,600	do	do	Do.
Senior assistant surgeon, full-time		7,274 1,095	do	Rotterdam, Netherlands	Do.
Visa examination aide, full-time	Ungraded, alien	1,022	do	do	Do.
	do	1,205	do	do	Do.
Senior assistant surgeon, full-time		7,630	do	Frankfurt	Do.
Visa examination aide, full-time	Ungraded	1,590	do	Germany	Do.
Medical X-ray technician, full-time	Alien	1,805	do	do	Do.
Medical officer, part-time	do	1,040	do	do	Do.
Senior assistant surgeon (R), full-time		7,096	do	Munich	Do.
Senior surgeon, full-time		9,463	do	Germany	Do.
Visa examination aide, full-time	Ungraded	1,600	do	do	Do.
Medical X-ray technician, full-time	Alien	1,800	do	do	Do.
Medical officer, full-time	Ungraded	3,300	do	Berlin	Do.
Visa examination aide, full-time	Alien	1,590	do	Germany	Do.
Medical X-ray technician, full-time	do	1,805	do	do	Do.
Senior assistant surgeon, full-time		6,918	do	Hamburg	Do.
Visa examination aide, full-time	Ungraded	1,760	do	Germany	Do.

Medical X-ray technician, full-time	Alien	1,660	do	do	Do.
Secretary (bilingual), full-time	do	1,042	do	Salzburg, Austria	Do.
Do	do	1,067	do	Vienna, Austria	Do.
Medical director, full-time	do	11,419 1,113	do	Hong Kong, China	Do.
Senior assistant surgeon (R), full-time		7,452 402	do	Montreal, Canada	Do.
Medical officer, full-time	Ungraded, alien	6,580	do	do	Do.
Clerk-steno-inspectress, full-time	GS-3	3,350 450	do	do	Do.
Surgeon (R), full-time		8,368 402	do	Windsor, Canada	Do.
Clerk-steno-inspectress, full-time	Ungraded, alien	2,640	do	do	Do.
Senior surgeon (R), full-time		10,708 402	do	Toronto, Canada	Do.
Clerk inspectress, full-time	GS-3	3,030 788	do	do	Do.
Medical officer, part-time	Ungraded alien	3,290	do	do	Do.
Do	do	3,290	do	do	Do.
Medical officer, full-time	Alien	6,580	do	Halifax, Nova Scotia	Do.
Do	GS-11	6,740	do	Vancouver, British Columbia.	Do.
Clerk-steno-inspectress, full-time	Ungraded alien	2,640	do	do	Do.
Medical officer, full-time	do	6,580	do	Quebec, Canada	Do.
Do	do	6,400	do	Habana, Cuba	Do.
Clerk-steno-inspectress, full-time	GS-3	3,415 1,440	do	do	Do.

[1] In addition to positions listed, there are 35 physicians who are employed intermittently as their services are required. The estimated total cost of this employment in 1954 and 1955 is $31,130.

HEALTH INSURANCE PROGRAM

Mr. BUSBEY. What is the Public Health Service's interest in the health insurance proposal that is being considered by the Committee on Interstate and Foreign Commerce at this time?

Dr. SCHEELE. The proposal is one that we have an interest in because we are interested in health and we appreciate the fact there is a problem in paying for medical care and hospitalization. This project was proposed to encourage broader coverage. That is our primary interest.

The bill that is being heard does not vest any operating or administrative responsibility in the Surgeon General of the Public Health Service. It vests responsibility in the Secretary of the Department and the decision as to just who would administer this program, if it were to be approved by the Congress, would of course rest in the Secretary's hands. I do not believe I would be in a position to know or indicate what present plan she might have in that regard if this bill is passed.

Mr. BUSBEY. Would you want to add anything to that, Mr. Larmon?

Mr. LARMON. It is a proposal which hopefully would result in more persons buying health policies, covering the expense of hospitalization, and would also enable insurance companies to offer policies in areas where there are not presently available statistics which clearly indicate their degree of risk. In other words, it would encourage private companies and nonprofit organizations to issue policies which would provide for protection, partircularly against catastrophic illnesses, and it gives an opportunity to private companies and nonprofit companies to insure a portion of their risk through the reserve fund of $25 million.

Mr. BUSBEY. Do you think that program would be assigned to the Public Health Service if enacted by Congress? Where is that supposed to be lodged in the Department?

Mr. LARMON. Directly, I assume, under the Secretary with the advice of Dr. Keefer as special assistant to the Secretary, on medical affairs. I think she would delegate to him particular responsibility; but of course, the final responsibility would be hers. It does provide for a group of insurance actuaries who would advise her.

HOME ACCIDENT PREVENTION PROGRAM

Mr. BUSBEY. What has been the cost of the home accident prevention program and what results have been obtained from that program?

Dr. SCHEELE. Do you have a breakdown of the cost?

Dr. ANDERSON. It is about $25,000 and our participation in the home accident program involves three people—the officer in charge—an engineer, the nurse, and a secretary. And our program is one largely of working with the States in studying the problem, and cooperating with them in connection with the rather large investment which the Kellogg Foundation has made available to certain States—I believe some $1 million.

As to the accomplishments, they are not directly those of the Public Health Service itself, other than through our technical assistance, but that of the States in working on this problem supported largely by funds from the Kellogg Foundation as well as their own State funds.

Dr. SCHEELE. I think one of our accomplishments in this program has been that our little staff helped to alert the States to the importance of their doing more about the home accident problem. Although this is certainly a trial-and-error period, it is a period when we are trying to learn what the components of home accidents are and then to develop ideas on what one can do to control them. And it is a rather substantial program that the Kellogg Foundation is supporting in a group of States, very much in the nature of some of the early experiments in building health departments which the Rockefeller Foundation and others financed many decades ago. We are just at the starting point of trying to get our teeth into the home accident problem.

COORDINATION OF PROGRAMS BY THE BUREAU CHIEFS

Mr. BUSBEY. Can you tell us what savings have resulted from the coordination of programs by the Bureau chiefs?

Dr. SCHEELE. No, sir; I cannot. This would be a very difficult thing to really develop figures on.

This program in its basic purpose is intended to give us some better contact and control of this farflung organization we have. We have a tremendous staff in terms of numbers and a very large sum of money in total to administer and, if we had each division reporting directly to the Surgeon General, although we are spread pretty thin now, we could be spread a great deal thinner. The Bureau chiefs offer intermediate points of contact.

We are, in the Bureau of State Services, about to go into a reorganization and are going to simplify the whole structure of the Bureau. We hope some savings will come from that and that when we appear before the committee next year I am hopeful, at least as far as the Bureau of State Service is concerned, that we will be able to show you some savings which have resulted from some of these consolidations we are going to make.

Mr. BUSBEY. Of course that is always music to our ears.

Mr. HARLOW. We have to go back and review all of the changes that have been made in the Public Health Service structure from the time of origin under the Public Health Service Act when those bureaus were established by law. And frankly I doubt if we now have the data on some of the changes that have taken place.

Dr. SCHEELE. There have been centralizations of certain management services and again, while they were centralizing certain management services, in some instances we were given a new program to administer. The National Institutes of Health, for example, is one of those where it is almost impossible to spell out saving that will come because of directorships.

Mr. BUSBEY. Now I have taken up more time than I should from the committee this morning, and I am going to forego any other questions until we get into the various divisions. I think Mr. Fogarty has some questions to ask, and I want to give him ample time to explore anything he wants. I will turn it over to you, Mr. Fogarty.

PRESIDENT'S EXPRESSIONS REGARDING PUBLIC-HEALTH POLICY

Mr. FOGARTY. Is there anyone here who can quote what the President said about health in his last message to Congress?

Mr. LARMON. I have some of the quotes here; I am not sure I can cover them all.

Mr. BUSBEY. There is one about strengthening the Public Health Service research.

Mr. LARMON. I think this is the quote:

> In addition, the Public Health Service should be strengthened in its research activities. Through its National Institutes of Health it maintains a steady attack against cancer, mental illness, heart diseases, dental problems, arthritis, and metabolic diseases, blindness, and problems in microbiology and neurology.

Mr. FOGARTY. I had in mind that he spoke about strengthening research in some categories of diseases.

Mr. LARMON. If I might add, later in the paragraph he says:

> In such direct research programs and in Public Health Service research grants to State and local governments and to private research institutions lies the hope of solving many of today's perplexing health problems.

Mr. FOGARTY. When did he make that statement?

Mr. LARMON. On January 18, 1954.

RECENT HISTORY OF PHS BUDGET REQUESTS

Mr. FOGARTY. Now what did the Truman budget request a year ago for the Public Health Service?

Mr. KELLY. $270,893,000.

Mr. FOGARTY. Then what did the Eisenhower budget request?

Mr. KELLY. $219,665,000.

Mr. FOGARTY. Which was a decrease of $51 million.

Mr. KELLY. Approximately.

Mr. FOGARTY. For the Public Health Services under what the Truman budget requested.

Mr. KELLY. Yes, sir.

Mr. FOGARTY. Now what did this committee allow?

Mr. KELLY. I do not have the committee alowance. I have the finally appropriated figure.

Mr. BUSBEY. If the gentleman will yield, was not a part of that decrease between the Truman and Eisenhower budgets due to the holding up of certain construction?

Mr. KELLY. $15 million had to do with hospital construction.

Mr. FOGARTY. That is all the construction funds that were in the decrease?

Dr. SCHEELE. I believe so; yes, sir. It was hospital construction.

Mr. KELLY. I think it spread to the rest of the figures, too, to a certain extent.

Mr. FOGARTY. I know the answer to that question. There was $15 million in there for construction of research facilities and that was deleted by the Eisenhower budget and by the committee.

Mr. KELLY. In answer to your question, the committee allowed $207,090,200 for 1954.

Mr. FOGARTY. And what was finally approved?

Mr. KELLY. $233,030,950.

Mr. FOGARTY. So Congress finally appropriated about $14 million more than the Eisenhower budget requested a year ago for the Public Health Service; is that correct?

Mr. KELLY. Approximately.

Mr. FOGARTY. What were your A and B budgets this year?

Mr. KELLY. The request of the Bureau of the Budget was in the amount of $198,298,750.

Mr. FOGARTY. And they cut you about $7 million?

Mr. KELLY. Yes, sir.

Mr. FOGARTY. What was your B budget?

Mr. KELLY. That includes both A and B budgets.

Mr. FOGARTY. What was requested of the Department of Health, Education and Welfare?

Mr. KELLY. Actually there was somewhat of an evolution in the preparation of this budget, and there are figures that moved backward and forward; but the final figure asked of the Bureau of the Budget, prior to the final markup and determination of the administration's policy, was $198,298,750. And that is the aggregate of both the A and B budgets.

Mr. FOGARTY. What was the first figure submitted to the Bureau of the Budget?

Mr. KELLY. I do not believe I can answer that question.

Mr. HARLOW. The original submission was $184,822,500 prior to the penalty mail law which was passed, under which there was an additional request of $405,250 submitted. Then, as a result of some further negotiations, an additional $13,071,000 was submitted, bringing us up to a total of $198,298,750.

Mr. FOGARTY. Do you have the figure that you submitted to the Department?

Mr. HARLOW. We just heard yesterday the committee was interested in that figure. We are working on it and we will have it, because in these various negotiations which took place, in which some items were submitted, they have to be analyzed before we can come up with the exact figure.

Dr. SCHEELE. I should say in the whole operation of our budget development it was somewhat different for 1955 than it was for 1954, and some of the things that might have applied a year or two before did not apply.

Mr. FOGARTY. But some items were raised and some cut. You have a cut of $600,000 for communicable diseases. Was that cut effected by the Bureau of the Budget, or by you?

Dr. SCHEELE. Both. The cut comes from the determinations regarding the total spending and approaching toward budget balancing, plus internal determinations in the Public Health Service regarding priorities.

Mr. FOGARTY. Has the need for continuation of that work leveled off and gone downhill?

Dr. SCHEELE. No, sir. There is still a need for that work, but it was determined that this represents the approach that might be the appropriate one to make to appropriations in the Public Health Service.

ANALYSIS OF 1955 BUDGET FOR RESEARCH

Mr. FOGARTY. In what way has the research arm of the Public Health Service been strengthened this year over last year? Where would it appear in your budget?

Dr. SCHEELE. It is shown largely in the increase for the Clinical Center appropriation.

Mr. FOGARTY. You show an increase of $200,000 for arthritis and metabolical diseases and show a decrease of over $500,000 for cancer, a decrease of $10,000 for dental health, a decrease of nearly $600,000 for heart and then you add $365,000 for mental health, $192,000 for microbiology, and $263,000 for neurology and blindness? It looks to me as though you are budgeting the same amount in total. You take off from one and put on another, but it does not look to me as though it strengthened the overall picture.

Has the research budget been strengthened?

Dr. SCHEELE. It has been strengthened in direct research in the Clinical Center and in our other institutions. It has been decreased in some instances in research grants, and in other instances in training grants; but the total money is approximately the same as for 1954. Proposed for 1955 for total operation of direct research and the various grant programs in the National Institutes of Health is $71,128,000, as compared with $71,153,000 in the present year. There is an overall net reduction of $25,000.

Mr. FOGARTY. But this budget you are requesting this year of $191 million is still about $80 million less than the Truman budget of a year ago according to my arithmetic. Is that right?

Dr. SCHEELE. I do not have the figure of the Truman budget.

Mr. FOGARTY. $270,893,000.

Mr. KELLY. Not included in the figure we gave you in the total request of the administration for the Public Health Service for this year is an appropriation proposed for later submission of $62,500,000.

Mr. FOGARTY. That is provided Congress enacts the legislation, which they have not yet done—the House has, but the Senate has not.

Mr. KELLY. Yes, sir.

Mr. FOGARTY. So the actual figure we have before us is about $80 million less than the Truman budget.

Now I read in the newspapers that the research arm of the Public Health Service was going to be strengthened and we were going to see some increases in research requested of Congress, but I just do not see them.

METHOD PROPOSED FOR AMENDING HOSPITAL CONSTRUCTION ACT

I was interested in the chairman's remark in a question to Dr. Scheele in regard to the amending of the Hill-Burton Act. And I agreed with the chairman at the time, although I did not say anything on the floor, but this could have been done very easily by a simple amendment to the act. There is no question about it. But I did not know whether you were being facetious, or whether you knew the answer, or whether you were trying to make a record here; but everybody I talked to on the floor that day told me the reason it was not done was because of politics.

If a simple amendment was offered to amend the Hill-Burton Act, it would not get the publicity in the newspaper. A new bill, a clean bill, with headlines saying "We are going to take care of the chronically ill, the aged, and provide nursing homes," would be something new and different, and that was the reason a short, simple amendment was not offered to the Hill-Burton Act, as I understood it.

Mr. BUSBEY. If the gentleman from Rhode Island knows that, I will say he knows something that I have no knowledge of. No one

has ever said anything to me about it in any way, shape, manner, or form. I never even discussed it with a single soul in the United States. I said on the floor what I sincerely thought was the right way to approach the question; not that I was out of sympathy with the objectives of the legislation at all.

Mr. FOGARTY. And I want to say for the record that I think you were right and it could have been done in a very simple way.

Mr. LARMON. The Under Secretary will be here tomorrow, I believe, and he was concerned particularly in that legislation, and he will be available to you for any discussion or questions then.

Mr. FOGARTY. But it seemed to be the consensus of Members of Congress I talked to the day that this legislation passed, that it could have been done in a very simple way, but there would have been no publicity in it at all. This way it looks as though we have a new, $180-million program instead of just a revision of an existing program Of course, we are only going to appropriate $60 million a year since the $180 million is for a 3-year program.

Mr. BUSBEY. I will also state for the record that the first time I even discussed the possibility of recommending a language change or the fact I was going to offer an amendment was within 20 minutes of the time I offered the amendment, when I spoke to Mr. Wolverton, the chairman of the committee, which is a courtesy we generally extend to the chairman of a committee when we are going to offer an amendment, so it will not take him by surprise.

Mr. FOGARTY. I think you were right; it could have been done very easily.

REDUCTION IN BUDGET FOR EXISTING HOSPITAL CONSTRUCTION PROGRAM

Now here we are on the one hand saying to people that we have a completely new program for which we are going to appropriate $60 million a year for 3 years to build these facilities; and at the same time we are cutting back the appropriation for Hill-Burton funds by $25 million.

Mr. BUSBEY. $15 million from last year.

Mr. FOGARTY. By $25 million below what we have been appropriating the last 3 or 4 years. Well, it just does not add up to me. And I do not know who is going to be fooled by it in the end. I do not see any justification at all for this cut of $15 million, or $25 million I call it, in the hospital construction program.

PRESENT NEED FOR HOSPITAL BEDS

What is the need for hospital beds at the present time in the country?

Dr. SCHEELE. I do not have the figures here that the State surveys show. I can say this, that the general shortage is in excess of half a million beds. Dr. Cronin, or someone, could probably furnish a breakdown of the State estimates.

Mr. FOGARTY. I understood the Secretary to say the other day it was in excess of 500,000.

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. And even though there is need for 500,000 beds to be built, someone in the Federal Government has said "We just won't do anything more about it, and it is just too bad," even though the

Congress, when they passed this Hill-Burton Act originally, passed it by unanimous vote. And it was amended and extended for a 5-year period by unanimous vote; and it was amended and extended last year by another unanimous vote. Still the Department of Health, Education, and Welfare continues to cut this program in the face of a unanimous vote authorizing $150 million—not $75 million or $65 million.

I cannot understand that type of thinking on behalf of the Department of Health, Education, and Welfare. I was amazed last year when the Secretary appeared before this committee justifying the cuts in the so-called Eisenhower budget for cancer, heart, mental health, neurology, and blindness, and arthritis, and metabolic diseases. I am happy to note there is some change in that thinking this year, because the committee and the Congress did not pay much attention to it and took that in their own hands and made a pretty decent bill out of it before they adjourned.

BUDGET FOR TUBERCULOSIS

Now you are still reducing pretty drastically in the control of tuberculosis and the control of venereal diseases. I had a letter from the National Tuberculosis Association. They are pretty much alarmed at this and they do not seem to agree with you or the Department of Health, Education, and Welfare that this problem has been licked. In two years the appropriation has been reduced from $8,240,000 to your budget request of $3,500,000. They seem to be getting alarmed at such a drastic reduction. They claim the problem is not licked and they claim that these figures are a false indication that there is no longer a problem there and the Federal Government ought to get out of the control of tuberculosis.

What do you have to say about that?

Dr. SCHEELE. Mr. Fogarty, we agree with them completely that the tuberculosis problem is not licked and that it is not going to be licked in the next year or two. We are not at the end of the line. On the other hand, it is our belief that the level of support proposed through the Public Health Service in the budget before you for 1955 represents a reasonable amount to put in this program in the light of all other problems in the health field and in the light of all other problems in the whole area of income of the Treasury and permissible expenditures.

The amount you are considering for this activity does cover the most important phases of the problem, although it may not make it possible for us to do everything that the experts or the people in the National Tuberculosis Association would like to see us do. We feel it is a reasonable request, but it does mean that the voluntary agencies in the States are going to have to do more for themselves if they are going to keep up their programs and we think it is reasonable to expect them to do that.

Mr. LARMON. There is a chart here which may be of interest to you and to the committee and which might go in the committee record in connection with your question. There has been a gradual transference of responsibility to the States since 1950 insofar as the grant-in-aid programs are concerned, in this area where you raised that question.

Dr. SCHEELE. I would like to add, too, that while there is a drop-off in State grants in the field of tuberculosis and venereal disease control, there is an increase in the request for funds for general assistance. And if that increase were granted, there would be nothing to prevent the States from spending more of that approximately $1.6 million of additional money requested for general assistance on tuberculosis and venereal diseases, too, for that matter. So while it does not show in tuberculosis, there is more in the other line.

Mr. FOGARTY. I have just found this letter I received, dated March 24, from the National Tuberculosis Association:

MARCH 24, 1954.

Hon. JOHN E. FOGARTY,
House Office Building, Washington, D. C.

DEAR MR. FOGARTY: The Board of Directors of the National Tuberculosis Association, a voluntary organization which has been unceasing in its fight against tuberculosis for the past 50 years, respectfully submits for your consideration the enclosed resolution which was unanimously passed at its semiannual meeting in February.

We are fully in accordance with programs for economy in Government; we do not believe, however, that reducing Federal expenditures for tuberculosis control at the present time is economic so long as tuberculosis remains our outstanding communicable disease problem.

The chronicity of tuberculosis also makes it one of the costliest diseases affecting the people of the United States today, conservative estimates placing the cost as high as $15,000 for one case of tuberculosis. Because Public Health Service funds have been used for control and preventive programs, they have resulted in finding more unrecognized and early cases, permitted shorter periods of hospitalization and less radical surgical procedures, with the net benefits being a real economy to the taxpayer.

Upon inquiry through our State and affiliate associations, reports have shown that the proposed reductions will seriously curtail services which, because more than two-thirds of the State legislatures will not convene until 1955, cannot be replaced by local appropriations at the present time. We believe that with adequate funds complete control of the disease can be achieved. It is our sincere hope that you will urge restoration of funds eliminated in the proposed budget for tuberculosis control and that you will exert your influence to prevent further reductions in the Federal tuberculosis control budget until such time as State and local areas are able to compensate for the reductions and tuberculosis is no longer a threat to the health of the people of our country.

Very truly yours,

MARK H. HARRINGTON, *President.*

Now his reasoning just does not stack up with yours, or this chart we just saw. He claims the States are not in a position now to replace these appropriations, because many of the legislatures will not convene until 1957. Is that true?

Dr. SCHEELE. It is correct that many of them are not in session.

Mr. LARMON. The chart indicates, I think, that the decrease in congressional appropriations started in 1950.

Mr. FOGARTY. But it seems to me in the last 2 years they have gone down much more than they did during 1950 and 1951.

Mr. LARMON. Yes, if I may add, as part of the general trend.

Mr. FOGARTY. I will ask that this resolution, which was attached to the letter that I have just read into the record, be included in the hearing record at this point. It shows they do not agree with the recommendations made by the Public Health Service or the Department of Health, Education, and Welfare.

(The matter referred to is as follows:)

RESOLUTION RECOMMENDING NO FURTHER DECREASE IN FEDERAL FUNDS FOR TUBERCULOSIS CONTROL WORK

Whereas the Federal tuberculosis appropriations have been decreased 38.8 percent in the last 3 years including a reduction of 34.7 percent in grants-to-States and the complete elimination of the United States Public Health Service's program of fast-tempo chest X-ray surveys in cooperation with large cities, and

Whereas the termination of the Public Health Service's fast-tempo X-ray surveys reduced yearly X-rays by approximately 1,200,000 and discontinued a program which in the past 6 years has resulted in the X-raying of 8,807,413 people and the finding of 61,652 cases of tuberculosis, 90 percent of which were previously unknown, and 8,507 of which at the time of X-ray are found with positive sputum, and an estimated 25,000 of which will become positive in 3 years, and

Whereas the reduction in the Federal appropriation for fiscal 1954 was made after most State legislatures had adjourned, with 33 of the 48 State legislatures not scheduled to reconvene until 1955, and with diminished State tuberculosis programs reported in 25 States, and

Whereas the decline in newly reported cases has not kept pace with the decreasing death rate and we have at our disposal the means of controlling tuberculosis if adequate finances are provided to maintain tuberculosis control programs, and

Whereas the board of directors of the National Tuberculosis Association is alarmed about the curtailment of tuberculosis appropriations during the past 3 years which has seriously impaired the progress of the tuberculosis control program, which program is in effect a sound investment with the probability of large returns now with lower expenditures in the future, therefore be it

Resolved, That the board of directors of the National Tuberculosis Association is opposed to any further decrease in Federal appropriations for tuberculosis control until there is reasonable assurance that such decreases will be compensated for by corresponding increases in the State and local tuberculosis control appropriations.

VENEREAL DISEASE BUDGET

Mr. FOGARTY. Is the problem of the control of venereal diseases under control?

Dr. SCHEELE. No, sir; we still have the problem and, as a matter of fact, there is some evidence that the problem is increasing slightly at the present time. But, again, in the case of our budget, which shows substantial reductions, we believe that within the funds available to us and which are available within this total budget, to cover the whole range of problems that we should cover in the Public Health Service—this was a lower priority item. Treatment techniques are well developed and useful drugs are available—and we believed that this was an area where we could begin withdrawing Federal assistance several years ago, and on down to the point now where we propose $2 million for State grants for 1955.

Mr. FOGARTY. If that reasoning is sound, why could not we take off another $1 million from control of tuberculosis and another of $1 million from control of venereal diseases, and add that $2 million to research on arthritis and cancer and heart and mental health?

Would it not be more effective in those categories than in tuberculosis and venereal diseases?

Dr. SCHEELE. I cannot deny, Mr. Congressman, that those moneys could be effectively spent in arthritis and these other research areas that you mention. On the other hand, while we believe that venereal diseases and tuberculosis are lower priority items in terms of our total program in the budget, we believe that it would be unfortunate

at this time to move out as drastically or as much more as you were suggesting a moment ago.

In other words, we believe we are moving down in an appropriate way, in the light of funds available for the Public Health Service, but we would hesitate to want to move out any more rapidly than this.

EFFECT OF INCREASE IN RESEARCH BUDGET

Mr. FOGARTY. What would you say if this committee decided to pay some attention to what the President recommended when he said he would like to strengthen the research arm of the Public Health Service, and added $1 million to cancer and $1 million to heart, instead of cutting each one of them over $500,000?

Would that be beneficial to the people of our country, if we spent $1 million more this coming year, in each of those programs?

Do you think $1 million could be spent economically and well in those categorical diseases?

Dr. SCHEELE. Yes, sir; and I do believe that it could be economically spent and, naturally, we will abide by the wisdom of Congress in this matter. We are not, however, asking for those additional sums.

Mr. FOGARTY. No; I know that. I told the Secretary a year ago that I was very disappointed in the so-called Eisenhower budget at that time, with regard to the drastic reductions that they recommended in research carried on by the Public Health Service, and that is on the record. I am not pleased with the recommendations that are before us now after I thought that the President was sincere in his statement that he wanted this research program strengthened.

As I look at it, it has not been strengthened, and I was just wondering whether or not you have reached the point where you do not have applications for research grants that have not been fulfilled by appropriations?

Mr. LARMON. Mr. Fogarty, may I say there at once, of course, that the President is sincere, and the Secretary is sincere.

There might be some differences of opinion on strengthening it in terms of some additional amount for research, but as I understand it, it is the same amount of funds with some additional—am I correct, Dr. Scheele—for direct research—of some $2 million for direct research?

Dr. SCHEELE. Yes, sir; the total is the same, but there is a reduction in research grants, and training, and an increase in direct research in the National Institutes of Health.

Mr. LARMON. Is it fair, Mr. Fogarty, for me to ask Dr. Scheele whether or not his organization is strengthened as well and is it more effective?

Dr. SCHEELE. I think our organization is strengthened because I believe that we are adding a good research program at the National Institutes of Health. I don't think the total cut impact of, say, fiscal 1955 at this level, as against fiscal 1954 at this level, is going to be greater. I think there is more efficiency; I think we know more about problems, although there will be more research in our own laboratories, and there will be a little less research, at least, so far as Federal support is concerned, in outside laboratories.

Mr. FOGARTY. I do not intend to try to put you on the spot as the Surgeon General, because I know you do not have the final say in this

program. The final say rests in the Secretary's office, and if there is any blame for lack of funds in research, or if the Members of Congress do not believe that enough money is being spent, or the wishes of the President have not been carried out, we have a perfect right to express our feelings that way, and I think all anyone has to do is to look at the figures and look at the record to see that we have done that on several occasions.

I think the record speaks for itself.

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. I want to be fair about it, and state that even the other administration did not always recommend the amounts of money that we thought should properly be spent in research, and, on several occasions, this committee and the committees in the Senate raised the estimates of the other administration on research for heart, cancer, and mental health.

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. Yes; I yield.

EFFECT OF BUDGET CEILINGS

Mr. BUSBEY. I want to say that I agree with the gentleman entirely and I have said so on many occasions. The committee can recommend to the full committee and through the full committee to the House any sums that we want to, regardless of the Department or the Bureau of the Budget.

I do think the Bureau of the Budget has a certain responsibility in establishing ceilings under which the Secretary has to work. Regardless of what she may ask for, when the Bureau of the Budget says, "This is your ceiling," then the Department must start scrambling around to see what can be done and where the cuts can be made to come within the ceiling, and not hurt any program which is being carried on.

Mr. FOGARTY. If that is the case, and if there is to be a ceiling—if the executive branch of the Government determines that there is to be a ceiling on how much can be spent for research, I think the people of this country should be told that there is a ceiling, and that we are not going to spend any more money for research than we did a year ago, and not give the impression to the people that we are increasing funds for research when actually we are not.

Mr. BUSBEY. They must take into consideration all of the factors which make up the economy of our country, and what is going to be coming into the Treasury, and what they have to pay out, taking into consideration defense needs and foreign aid and many other things.

Now, frankly, I would like to see a lot of the foreign aid cut out, and more money put on this research by the Bureau of the Budget, but in their recommendations, of course, they did not see it that way.

Mr. FOGARTY. Perhaps, if we put in more money for research, they will cut foreign aid.

Mr. BUSBEY. I hope they cut foreign aid, whether we increase the amount for research or not.

Mr. LARMON. Mr. Chairman, may I say that to my knowledge there was not a positive ceiling imposed at this time, on this particular phase of the budget.

LONG-TERM ECONOMIC EFFECT OF MEDICAL RESEARCH

Mr. FOGARTY. I know you have problems with the amount of money that is available, but I have been told, or this committee has been told, year after year by some of the most outstanding surgeons and physicians in the country, who have been invited to appear here before our committee, that it would be good economy if we spent more money on research, especially in mental health.

Now, either they do not know what they are talking about, or the administration does not care for more economy. I do not know who is wrong, but someone is wrong.

Mr. LARMON. Mr. Fogarty, I assume judgments vary in regard to what contributes more to the economy, necessarily.

Mr. FOGARTY. I do not think there is any question in their minds. They were considered outstanding men in their field in this country, and if you look back at this committee's hearings over the past 7 or 8 years, you will find that they were very forceful in their testimony.

I notice in the program of vocational rehabilitation that you people are advocating an extended and advanced program, which I am 100 percent for, on the basis that it is good economy.

Mr. LARMON. That is correct, Mr. Fogarty. I simply meant that there are persons whose judgments will vary in regard to what contributes most to the economy.

Mr. FOGARTY. Well, let us take, for instance, mental health.

Now, suppose we did add a couple of million dollars to the Mental Health Institute for research and in a year or 2 years or 3 years some means was found to prevent people from having nervous breakdowns, or you might find the answer to schizophrenia, or something like that.

Would it not be a tremendous savings to every State in the Union and to the Federal Government?

Mr. LARMON. I think it might well be, sir, but I simply meant that there are various measures that may contribute to the economy, of which this is one.

Mr. FOGARTY. Do you doubt that that could happen?

Mr. LARMON. I do not doubt that that could happen.

Mr. FOGARTY. These doctors have testified before us each of the last several years, and are pretty definite in their statements that it would make for better economy if more money was spent in research, and I am now thinking mainly of mental health.

You are familiar with the action of the committee last year on the recommendations of the Eisenhower budget?

Mr. LARMON. To a degree, sir, but not entirely.

Mr. FOGARTY. You are familiar with what the Senate did? They raised it when it got over there, also.

Mr. LARMON. I am not familiar enough with it to be accurate.

NEUROLOGY AND BLINDNESS

Mr. FOGARTY. You show an increase of $263,000 in neurological diseases and blindness, which I think is good, but I don't think it is near enough.

When was this program enacted into law? Four years ago?

Mr. KELLY. Four years ago.

Mr. FOGARTY. What did the Eisenhower budget recommend last year for neurology and blindness?

Mr. KELLY. $2,574,000.

Mr. FOGARTY. We raised that a couple of million dollars, but this year you only raised it $263,000 over what they had last year, and that is one of the new young growing institutes, and the problems with which it deals affects about 20 million people in this country, if I remember the figure correctly.

Dr. SCHEELE. Yes, sir; it does.

Mr. FOGARTY. Well, $263,000 for 20 million people is not very much, in my opinion.

HOOVER COMMISSION REPORT ON MEDICAL RESEARCH

What did the Hoover Commission say about Public Health Service's research?

Dr. SCHEELE. Well, I can just generalize on their statements.

Mr. FOGARTY. Well, will you get what the task force had to say, and put that into the record?

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. As I remember, it was complimentary.

Dr. SCHEELE. In general, the suggestion was that if we spend time and money on research, we would be cutting off some of the custodial care and hospitalization problem at the other end, and they felt that research was good economy.

Mr. FOGARTY. That is what I thought.

(The matter referred to is as follows:)

"* * * The Government is moving into uncalculated obligations without an understanding of their ultimate costs, of the lack of professional manpower available to discharge them, or of the adverse effect upon the hospital system of the country.

"It is fundamental that whatever care the Government provides must be of the highest quality. The health of the Nation demands the maximum employment of present scientific knowledge to control disease, and of research to find new means for the prevention of disease. Such research must be stimulated and supported to the maximum limits of available manpower. The Nation's future can best be protected by using every means to prevent disease, rather than by providing unlimited hospitalization to treat it. Medical care offered by the Federal Government should be a model for the Nation." (Reorganization of Federal Medical Activities, a report to the Congress by the Commission on Organization of the Executive Branch of the Government, March 1949, pp. 7 and 8.)

EFFECT OF TRAVEL RESTRICTIONS

This committee, as you know, cut funds for travel pretty drastically last year for the entire Department of Health, Education, and Welfare.

How has that limitation on travel affected your people?

Dr. SCHEELE. Well, what has happened is that in many instances individuals who would otherwise have gone to meetings, scientists and others—have not gone, or if they have gone, they have paid their own way or some organization outside has paid their way especially if they were important people, were needed as officers, and that sort of thing.

It has reduced our travel almost in direct proportion to the reduction in funds. I believe some of this was worth while. We were plan-

ning to take some administrative steps to tighten up some on travel ourselves, before the limitation was placed on us. On the other hand, it has cut down communication considerably, and in the scientific areas, particularly, this is a very important problem, because the scientist learns by seeing his fellow scientist, hearing them talk and asking questions, and being with the group of people interested in the same field of research.

There has been a curtailment of that, and a reduction in efficiency of our own staff as a result of it.

However, I am not complaining, Mr. Chairman.

Mr. FOGARTY. Well, can you travel for $9 a day and pay all your expenses?

Dr. SCHEELE. No, sir; I can, I suppose, but it normally costs me more than that. I could, I should say, rather than "can"; I could.

Mr. FOGARTY. Off the record.

(Discussion off the record.)

METHOD OF ARRIVING AT PUBLIC HEALTH BUDGET FIGURES

Mr. FERNANDEZ. In answer to some comment by Mr. Fogarty that we appreciated the fact that you were working under certain limitations in preparing your estimates and recommendations, the Assistant Secretary said there was no limitation here. That is rather unusual, I thought. Where was the limitation?

Mr. LARMON. I did not quite hear your full question, Mr. Fernandez.

Mr. FERNANDEZ. You stated, as I understood, that there was no limitations, no ceiling, on the part of the Bureau of the Budget?

Mr. LARMON. There was a matter of discussion and judgments but to the best of my knowledge there was not any final discussion positively placing upon us a ceiling, as such. It was a matter of discussion with the Bureau of the Budget.

Mr. FERNANDEZ. In the discussions with the Bureau of the Budget, I take it though that the Bureau of the Budget trimmed some of the recommendations made by the Health Service to the Department of Health, Education, and Welfare?

Mr. LARMON. There is a variation, as indicated in the figures, as between the recommendations and the final figures.

Mr. FERNANDEZ. Well, taking them one by one, in regard to this venereal disease control program cut, which is rather large, following another large one last year, how much did the Public Health Service recommend to the Department of Health, Education, and Welfare?

Mr. LARMON. Mr. Fernandez, I do not have that figure. The question in regard to that was asked, I believe, before, and those figures were not available. It is my understanding, however, that they are being compiled.

Mr. KELLY. Mr. Harlow stated that the figures on the target estimates were being developed, but that we did not have them with us, because there have been several figures in the course of our preparation of the budget, and they have not been fully pulled together for presentation this morning.

Mr. FERNANDEZ. These reductions, though, were made, I take it, upon discussions and urgings by the Bureau of the Budget?

Mr. LARMON. I was not present at the time, Mr. Fernandez. I assume that the usual discussions took place; yes.

Mr. FERNANDEZ. Well, you know that—whether that is a fact or not. Is that the fact?

Mr. LARMAN. Would you mind repeating the question, sir?

Mr. FERNANDEZ. You know whether it is a fact that the Bureau of the Budget urged this reduction, and I am speaking of the large ones with respect to venereal disease and tuberculosis and hospital construction.

Mr. BUSBEY. Would the gentleman yield?

Mr. FERNANDEZ. No; I would like to have an answer. You know that is a fact, do you not?

Mr. BUSBEY. I am not foreclosing your questioning, but I want to interpose this thought: I wonder if it would not be wise, first, to determine who carried on the discussions with the Bureau of the Budget so we could ask them when they come up?

Mr. FERNANDEZ. I am not interested in the details; I am only interested in knowing who made these recommendations.

You know, I believe, and I believe that the chairman will agree with me, that the recommendation made by the Surgeon General of the Public Health Service to cut some of these programs as drastically as they have been cut, in the face of the President's recommendations to the contrary, would have been of much more effect with me than if such recommendations were made by a banker, no matter how good a banker he is.

That is the reason I am trying to find out just what did take place.

Mr. BUSBEY. Mr. Larmon has testified that he was not there, and he did not take any part in it. So, I thought, perhaps, the questions should be asked of someone who took part in the discussion. I do not know if Dr. Scheele was there or not, or whether he could answer it, but I do not think that Mr. Larmon could answer, as a matter of fact, if he was not there.

Mr. FERNANDEZ. Whether he took part in the discussions or not, he probably knows; and if he does not, he can say so. I am just asking if he does not know that that is the fact, that the cuts were made at the suggestion and urging of the Bureau of the Budget to a lesser figure than that recommended by the Public Health Service.

Mr. LARMON. I believe you will find that recommendations were made to the Bureau of the Budget and the Bureau of the Budget considered those recommendations, and in mutual discussion that this figure was arrived at, which has come up as part of the President's budget; yes, sir.

Mr. FERNANDEZ. And, as a result of those discussions, these large cuts about which Mr. Fogarty was inquiring and about which I am inquiring, were the results of the judgment of the Bureau of the Budget?

Mr. LARMON. Certainly; this was the result of the discussions, Mr. Fernandez. I was not present, so I could not reply as to the facts.

Dr. SCHEELE. May I respond to that, Mr. Fernandez?

Mr. FERNANDEZ. Yes; I would like to have what information you have on the subject.

Dr. SCHEELE. The proposal to cut it was my responsibility within the Public Health Service. It should not appear that the Bureau of the Budget pushed this one to this level by any direct action on this program, and I am talking about the venereal-disease-control-program, and I will mention tuberculosis in a moment.

Mr. Larmon's statement to the effect that the Bureau of the Budget did not pinpoint what areas of our program that should be cut was correct.

Now, in justification of our own action here—though it may appear to be inconsistent when I say we continue to have a continuing VD problem and tuberculosis problem—and I am pointing now to the fact that there are certain matters of judgment that the bankers are in a much better position to judge, than a technician like the Surgeon General, and that involves the matter of income.

Mr. FERNANDEZ. I appreciate that of course, all I am trying to find out is whether it is the bankers judgment we have, or the judgment of the service as to the need or lack of it.

Dr. SCHEELE. We arrived at our figures, working under certain assumptions of the maximum source of dollars which might be available within the range of a portion for the Public Health Service. Therefore, we had to draw ceilings on individual items. At that point, we had to look at what seemed most important to carry on, on the same scale. We made a determination that the National Institutes of Health and the clinical center should take on more patients, and that automatically created the necessity of looking at something else.

Mr. FERNANDEZ. You have to meet the overall situation.

Dr. SCHEELE. Yes, sir; and it was our problem, and I take full responsibility for it. In the light of what we could have for our total program, these programs failed to meet the higher priority, and they were lower than others. That is why the cuts appear to be rather steep in these contribution programs.

VENEREAL DISEASE CONTROL

Mr, FERNANDEZ. Now, taking them one by one—take the venereal disease control program first. You stated a while ago that that disease was on the increase. That is perfectly natural, because we cut them pretty drastically last year.

Can you give us assurance that the problem has not increased to the point where we will have undone a great deal of good that has already been done if we were to drastically cut the venereal disease program?

Dr. SCHEELE. No, sir; I cannot assure that. On the other hand, I do not believe any drastically bad result will come. There will be things that will not be done; there will be some case finding that will not go on, that would otherwise go on. On the other hand, our hope is that the people in the communities where these problems exist will recognize the importance of their building up a little bit themselves, a little more, if, in fact, their problems are increasing.

I mentioned some increase in the problem, and this is not a very large increase. It is a spotty kind of increase that occurs. It is not increasing everywhere. There are certain focal points where it is a greater problem, but I do not believe the incidence of venereal disease infection is going to go up drastically as a result of the proposed reduction in funds requested for fiscal year 1955 and funds provided for fiscal year 1954.

Mr. FERNANDEZ. Since we already have the information that it has increased some, and we all know that without the continuous work of combating it, that it is bound to increase, tell us how you are using the funds in order to minimize that increase?

Dr. SCHEELE. Under technical assistance to the States, there is a decrease there from $2,268,500 this year to $1,590,000. In our technical assistance programs we do help the States and the cities and counties pinpoint where the problems are unusual, whether those be in defense impacted areas where there is increased production because of defense or military cantonments, and border problems, and things of that sort.

So, while we will have some reduction in our ability to give technical assistance, under this proposal we will, nevertheless, continue to focus into the trouble spots in our own direct assistance to the States and communities. We are not proposing that that be wiped out. We have proposed that the across-the-board grants be reduced down to zero.

I should also say again something that I said before, and that is there is an increase in general assistance to the States of $1.6 million, and should the Congress, in its wisdom, see fit to accept that figure, the States can use that money in the general assistance line, for venereal disease programs, if they are being hurt to the point that they do not want to move out completely themselves.

Mr. FERNANDEZ. Since you have had some experience already with this matter of trying to pinpoint the problem in the various States, do you have any information as to whether we have been able to so pinpoint it in New Mexico and that we could use some of that money in certain areas, which I need not name, where the disease has been more prevelant and more dangerous, because such areas are isolated under Federal control and jurisdiction.

Dr. SCHEELE. I am sorry to say that I cannot give you an answer to that. There are funds being appropriated, and have been in the last 2 years by the Congress to the Department of the Interior and to the Indian Service, to use for public-health work among the Indians, and it would seem to me that with all technical assistance outside the reservations—and we do not always draw a line at the reservation in terms of cooperating with the programs—we are also doing work with the Indians which they were not doing a number of years ago, and with the program that exists in the Indian Service itself, we should be able to pinpoint substantially their problems.

Of course, I should point out also that it is not just a matter of finding the case and preventing the spread. There is more to the venereal disease problem than that. There are certain social aspects of this problem, as there are in any other health problems, and the health program of the Department of the Interior and the health program of the Public Health Service alone are not going to solve all the problems.

Mr. FERNANDEZ. Would you say, doctor, that the new drugs which have been developed, and which are being used to combat that disease, should make it now be possible for the States to carry on the same kind of a program, or close to the same kind of a program, as a result of these new drugs, more effectively than was possible 10 years ago?

Dr. SCHEELE. It is much less costly to carry on the program now. Ten years ago most of the care of the patients and most of the treatment was done at public expense. That was because the drugs then in use were not necessarily expensive, but they required a tremendous lot of time in their administration. They had to be given under ideal

conditions weekly, and sometimes twice a week, by cumbersome methods like putting the drug into a vein in the arm, and over a period of a year or more.

This was done in the early cases of the treatment of syphilis. Today, that has been changed by the advent of antibiotics and penicillin and other drugs, so that with relatively few treatments, we have some materials now available where one dose, or one injection will last for some time. Treatment is effective if given for several weeks with only a few injections and by only a few visits to a physician's office.

With the simple treatment, we can do as much as we were doing in many cases, more than we were doing with the more cumbersome treatments and routines of 10 years ago. So, there has been a shift away from the public clinic for treatment.

Mr. FERNANDEZ. On the other hand, Doctor, the nature of the disease is such that in certain areas, at least, it is pretty hard to get the program going at full speed, unless it is done, and spearheaded by public authorities.

Is that correct?

Dr. SCHEELE. That has been very helpful in the problem. You may have read in the local newspapers that the District of Columbia Health Department started 2 weeks ago on a very intensive case-finding program here. They are trying to move the venereal diseases toward eradication. Such programs still are necessary. Chicago had one and there will be another in St. Louis in the next week or two. A few other cities have had them in recent times. It is necessary to continue to concentrate case findings.

If there is any one area which is suffering some from this problem it is laboratory diagnosis. There have been some losses in the ability of States and city health departments to continue to carry the blood-testing programs which they need to cover.

Mr. FERNANDEZ. Are there any other reasons or justifications that you can give us to justify the second cut in the program?

Dr. SCHEELE. You mean the cut to this present year and then the cut to next year?

Mr. FERNANDEZ. Yes.

Dr. SCHEELE. No, sir. We feel that Federal action in this area, in the light of all of these other economic and budgetary problems, can be withdrawn to the level that is proposed here.

TUBERCULOSIS CONTROL

Mr. FERNANDEZ. Can you give us some reasons or justifications with respect to tuberculosis?

Dr. SCHEELE. Reasons are almost identical to those of the cases in venereal diseases except in the case of drugs for treatment. Public Health Service, beginning intensively in 1944, developed techniques for mass screening and for a number of years sent X-ray units and teams out to our major cities to help them do communitywide case finding. The program gradually wound up and now is terminated.

We have been helping the States to build up their own health departments and their own programs of early case finding, and it is our feeling that while the problem is far from solved, and, as Dr. Anderson

pointed out, we have made tremendous progress in saving lives from tuberculosis in recent years, we nevertheless still have a lot of cases and something has to be done for these cases.

We therefore feel that if we can continue our role in research, we can continue the study of the drugs, we may through this device find methods that will begin much more rapid cutback in our incidence, and we believe that the program at the level proposed, with the thought in mind that the States will in some instances use some of the increased funds proposed in general assistance, we will not see any great loss in the program as a result of this change.

As I say, it does mean that the communities, the tuberculosis associations locally, will have to pick up slack in some instances and we hope they will. We feel it is a very proper responsibility for them to assume.

If I may just say this: You seem to be very interested in the venereal disease and tuberculosis control cutbacks in State grants. Some of the cutback in tuberculosis and venereal disease is offset in the increase in "general assistance" so that the three items need very much to be looked at together in attempting to ascertain what the impact on the States is.

If the increase is not given in "general assistance" then the impact in tuberculosis control will be much greater than if this other increase is given. Our total funds for State grants are down only about $2 million. They are down from $23,515,000 this year to $21 million proposed for next year.

Mr. FERNANDEZ. I am interested because of the very drastic cut last year and a further cut this year. I am interested in both of those programs, particularly tuberculosis, since my State has to take care of so many tubercular people who don't belong there but come there because of the climate. We still welcome them but we do not feel it should be our sole responsibility.

Just one more question: Supposing that the committee felt that in view of the reasons you have stated here today we think that instead of ending it next year or the year after that it should be ended now and this put into "general assistance" so there may be more leeway in determining to what program or to what purpose they should be devoted; what do you think about that?

Dr. SCHEELE. I believe we would favor that. To put it another way, we would not object to it. That would be in agreement with the concepts that are expressed in the bill which is now pending in Congress which proposes to wipe out all of the categories in favor of a general grant program. The President's proposal would eliminate the venereal disease, tuberculosis, mental health, cancer and heart categories in favor of a general assistance line.

Mr. BUSBEY. Any further questions? If not, we thank you very much.

WEDNESDAY, MARCH 31, 1954.

ASSISTANCE TO STATES, GENERAL

WITNESSES

DR. JACK C. HALDEMAN, ASSISTANT CHIEF, BUREAU OF STATE SERVICES
DR. H. VAN ZILE HYDE, DIVISION OF INTERNATIONAL HEALTH
STEPHEN ACKERMAN, FINANCIAL MANAGEMENT OFFICER, BUREAU OF STATE SERVICES
DR. LEONARD A. SCHEELE, SURGEON GENERAL
NELSON A. ROCKEFELLER, UNDER SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$16,150,000	$13,250,000	$15,039,000
Transferred from—			
"Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		155,000	
"Control of venereal diseases, Public Health Service," pursuant to Public Law 452	50,000		
"Salaries and expenses, Public Health Service," pursuant to Public Law 410		120,000	
Adjusted appropriation or estimate	16,200,000	13,525,000	15,039,000
Reimbursements from other accounts	150,818	381,200	381,200
Total available for obligation	16,350,818	13,906,200	15,420,200
Unobligated balance, estimated savings	−38,058		
Obligations incurred	16,312,760	13,906,200	15,420,200

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
1. Grants to States for general health	$13,000,000	$10,135,000	$11,760,000
2. Direct operations:			
(a) Technical assistance to States	1,964,792	1,879,000	1,763,500
(b) Vital statistics	1,089,849	1,286,000	1,295,500
(c) International health activities		120,000	120,000
(d) Administration	107,301	105,000	100,000
Total direct obligations	16,161,942	13,525,000	15,039,000
Obligations Payable Out of Reimbursements From Other Accounts			
2. Direct operations:			
(a) Technical assistance to States	13,248		
(b) Vital statistics	137,570	120,200	120,200
(c) International health activities		261,000	261,000
Total obligations payable out of reimbursements from other accounts	150,818	381,200	381,200
Obligations incurred	16,312,760	13,906,200	15,420,200

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	561	562	544
Full-time equivalent of all other positions	6	5	5
Average number of all employees	508	529	513
Average salaries and grades:			
General schedule grades:			
Average salary	$4,399	$4,399	$4,388
Average grade	GS–6.0	GS–5.9	GS–5.8
Crafts, protective, and custodial grades:			
Average salary	$3,421	$3,437	$3,437
Average grade	CPC–4.6	CPC–4.6	CPC–4.6
Personal service obligations:			
Permanent positions	$2,578,789	$2,816,244	$2,715,914
Other positions	28,735	22,220	22,220
Regular pay in excess of 52-week base	7,359	6,973	6,803
Payment above basic rates	12,724	11,563	11,563
Total personal service obligations	2,627,607	2,857,000	2,756,500
Direct Obligations			
01 Personal services	2,517,207	2,512,000	2,411,500
02 Travel	133,768	168,300	166,000
03 Transportation of things	38,009	34,200	29,900
04 Communication services	24,995	185,400	193,300
05 Rents and utility services	69,984	72,500	72,500
06 Printing and reproduction	75,356	83,400	82,400
07 Other contractual services	39,005	53,400	51,200
Purchase of vital records transcripts	166,825	170,000	170,000
08 Supplies and materials	53,833	62,900	61,300
09 Equipment	39,584	44,600	37,600
11 Grants, subsidies, and contributions	13,000,000	10,135,000	11,760,000
13 Refunds, awards, and indemnities	47		
15 Taxes and assessments	3,329	3,300	3,300
Total direct obligations	16,161,942	13,525,000	15,039,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	110,400	345,000	345,000
02 Travel	717		
05 Rents and utility services	34,510	32,400	32,400
06 Printing and reproduction	3,310	2,100	2,100
08 Supplies and materials	1,881	1,700	1,700
Total obligations payable out of reimbursements from other accounts	150,818	381,200	381,200
Obligations incurred	16,312,760	13,906,200	15,420,200

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$300,470	$279,082	$314,082
Obligations incurred during the year	16,312,760	13,906,200	15,420,200
	16,613,230	14,185,282	15,734,282
Deduct:			
Adjustment in obligations of prior years	30,991		
Reimbursements	150,818	381,200	381,200
Obligated balance carried to certified claims account	320		
Inliquidated obligations, end of year	279,082	314,082	293,082
Total expenditures	16,152,019	13,490,000	15,060,000
Expenditures are distributed as follows:			
Out of current authorizations	15,919,545	13,250,000	14,820,000
Out of prior authorizations	232,474	240,000	240,000

Mr. BUSBEY. The committee will come to order.

The first budget request we have for consideration this morning is "Assistance to States, general."

GENERAL STATEMENT

Dr. Haldeman, we will insert your prepared statement in the record and then will appreciate it if you would make an explanation to the committee from the charts which you have brought along.

STATEMENT OF DR. JACK C. HALDEMAN, ASSISTANT CHIEF, BUREAU OF STATE SERVICES

Mr. Chairman and members of the committee, this appropriation provides funds for a variety of public health activities not covered in other more specialized appropriations. It is the purpose of this appropriation to bring to the people of this country the fruits of research and to develop, extend, and support the modern public health techniques which will lead to the application of proven procedures in State and local health departments.

There is a great deal that we know of the nature of diseases, the conditions which cause them, and the preventive measures which can be instituted on a communitywide basis to prevent or curtail their serious effects on the population. Unless this knowledge is applied, however, much of the potential benefit of research and investigation is lost.

This appropriation is divided into two parts:

1. Grants to assist in the financing of basic health services provided by State and local health departments;

2. Direct operations of the Public Health Service designed to expedite the rapid translation of findings of research and investigations into active community health programs through:

(*a*) Technical assistance to States in the form of chronic disease studies, training, and consultation;

(*b*) Vital statistics services; and

(*c*) International health activities.

GRANTS TO STATES

The largest item in this appropriation is the one relating to grants to States for general health work.

Before speaking of the general health grants included in this appropriation, it would be well to look at the total picture of grants-in-aid to States for public health services administered through the Public Health Service. The level of these grants for fiscal year 1953 was $32,552,000. Reductions in the current fiscal year appropriations brought this total figure down to $22,626,500, or a reduction of 30.4 percent below 1953. The timing of this reduction was such that very few of the 44 State legislatures which met in the spring of 1953 could take the reductions of Federal funds into consideration in determining the level of State appropriations for public health. States, therefore, did not have an adequate opportunity to make orderly adjustments in their programs. Consequently there have been serious reductions in the services and activities of State and local health departments throughout most of the United States.

Many States, for example, have reported substantially reduced aid to local health units for the provision of essential and basic local public-health services. Many others have reported substantial curtailment of tuberculosis casefinding activity and discontinuance of one or more mobile X-ray units. Most States have reported very drastic reductions in the training of personnel for more effective and efficient public-health work. The sanitation programs in many States have been curtailed through reduced activity in such basic services as insuring safe water supplies and adequate sewage disposal systems. Many States have found it necessary to reduce the kinds and volume of laboratory services which they have previously been making available to private physicians and local public-health departments in the diagnosis of disease.

In summary, 31 States have reported that the total amount of funds available from State appropriations and Public Health Service grants combined are less in 1954 than they were in 1953. Even in those few States in which the total

amount of combined funds is greater in 1954 than in 1953, most of the State increases were earmarked by the legislatures for specific and limited types of public-health activities and therefore, are not available to offset Federal grant reductions as the State health officer might determine to be most advantageous in continuing a well-rounded public-health program.

The total grants to States for public-health services contained in this and other Public Health Service appropriations for fiscal year 1955 is $20 million, a reduction of about 11.6 percent below the amount for the current fiscal year of 1954. One reason why more severe reductions should not be made below the 1954 level is that only 15 States will have regularly scheduled legislative sessions in the spring of 1955 which would enable them to appropriate funds for public-health services. Consequently, any significant reductions in Federal grants to States for fiscal year 1955 would further reduce the level of State and local public-health activity without adequate opportunity for States to offset these losses through increased State appropriations. An additional reason is that the Commission on Intergovernmental Relations is currently studying the role of the Federal Government with respect to Federal grants-in-aid and the redistribution of tax resources. It would not appear to be timely for the Federal Government either to reduce or increase substantially the level of Federal grants-in-aid for health until such time as this Commission has had an opportunity to study and report its findings and for the executive and legislative branches of Government to consider such recommendations carefully.

Within this overall total of $20 million for grants to States included in the 1955 appropriations for the Public Health Service, however, some shifts have been made in the amounts of money being requested for various programs. Grants for community mental health services, for cancer control activities, and for heart disease control activities have been maintained at the 1954 level. Grants for venereal disease control have been eliminated and grants for tuberculosis control have been reduced below the 1954 level. On the other hand, the amount of grants for general public health purposes contained in this appropriation have been raised above the 1954 level to a total of $11,760,000, or an increase of $1,625,000. It is, however, a decrease of $1,240,000 below the 1953 appropriation for grants.

This adjustment has been made because funds under the general health grant can be used more flexibly by State health officers to support public health activities having the highest priority in their States. In some States these funds will be used in partial support of venereal disease and tuberculosis control activities if these programs are of greatest public health significance in those particular States and Federal and State funds specifically appropriated for this purpose are inadequate. In many States, the increases will be used to counteract the reduction in program activity in the fields of local health service, laboratory service, sanitation, or any other program which may have been curtailed by virtue of fiscal year 1954 reductions below the safe level of public health protection.

The funds in the general health grant are the source of Federal support which assists States and localities to provide the very basic types of public health service to their populations—such services as health education, public health nursing, sanitation, laboratory service, communicable-disease control, immunization, and other services which continue to make such a contribution toward the reductions in illnesses and prolongation of life which has characterized the recent decades in our history.

These are also the activities which form the hard core of services necessary in any mobilization effort. They not only enable us to move forward in public health protection but also hold the line against a deterioration of public health protection. Only through continued action and surveillance can gains which have been made to date be protected for future generations.

The status of the health of the people of the United States is a matter of paramount Federal concern. No asset which the United States possesses is of greater importance than the health and well-being of its people. This is true not only from the humanitarian point of view but also because only a population with maximum good health can economically and adequately man our industries, farms, and military services. Only through the prevention of disabling illness can the costs of medical care and hospitalization and of welfare payments to physically incapacitated individuals and their families be materially lessened. Both of these types of costs constitute a much heavier drain upon the Treasury of the United States than do the costs of preventive measures which can be instituted to prevent or minimize their effects.

To say that the Federal Government has an obligation to help provide public-health protection to the people of the United States, however, is not to say that the Federal Government itself must directly provide and administer such preventive services. Through the mechanism of grants to States the Federal Government can and does discharge part of its responsibility while at the same time taking full advantage of the State and local units of government which are close and responsive to the particular needs of the people whom they serve. As the State and Territorial Health Officers Association, in its meeting in November 1953, affirmed, "Federal grants-in-aid provide a democratic substitute for direct national action in the field of health; they prevent centralization and progressively strengthen the health programs of States and localities."

The job of protecting public health is, therefore, a partnership of the Federal Government, the State governments, and the local units of government. Only when all three members of this partnership contribute their full share of resources to the total effort can this country achieve the kind of public-health protection for the people to which they are entitled and which our modern scientific knowledge makes possible.

TECHNICAL ASSISTANCE TO STATES

Technical assistance to States involves several steps in the field of direct Federal activity which are necessary to put research findings into operation at the community level. These steps are demonstrations, training, and consultation. The first of these steps (demonstrations) begins with the pilot-plant operation which has as its purpose the development and perfection of the techniques of community application of research findings. Through such demonstrations are developed the procedures, staffing community organization, flow of work, and professional relationships essential to the smooth functioning of a new program. This type of demonstration activity is provided in this appropriation under the chronic-disease studies in the technical-assistance item.

CHRONIC-DISEASE STUDIES

Chronic diseases represent the most extensive and costly public-health problem in the United States today. Conservative estimates indicate that some 34 million people suffer the effects of some kind of chronic disease, and the number will grow as our population continues to age. No estimates are available as to the total cost of chronic illness, but the disability and invalidism which it imposes, the dependency which so often results, and the family dislocation which is an all too frequent consequence, would reach very large proportions if we could place a dollar value on them. Prevention of chronic disease and of the disability which it usually causes is, therefore, of great national interest.

Development of knowledge and the application of this knowledge to specific public-health situations are of primary concern to the Public Health Service and to State and local health agencies and provide the basis for the activities under this appropriation. In some of the more prevalent chronic diseases, there is sufficient understanding of disease processes to prevent—at the very least—serious disability. Through early case finding and the application of the knowledge at hand, prevention in this sense can be achieved and impairments alleviated or averted entirely.

With funds provided by this appropriation, the Service, therefore, is conducting additional research in case-finding techniques which can be given mass application, and is collecting basic data which can be used in developing and validating more effective diagnostic techniques. Attention is also being given to the practical application of specific public-health measures based on these techniques which can be incorporated in State and local chronic-disease programs. Chronic-disease studies will also be carried on in the field of diabetes, a disease which affects about 2 million people, half of whom do not know they have the disease.

TRAINING

The second step in the translation of research findings into active community public-health programs is the training of personnel. Each new research discovery which has public health application introduces anew the problem of training public health personnel in its use and application. In addition to training for new techniques, there is much training, both of an inservice and an

academic nature, that must continue in order to qualify existing and new State, local, and Public Health Service personnel for the most effective and economical performance of their duties in continuing health programs. It is for these purposes that funds for training are included in this appropriation.

The nationwide shortage of adequately trained health officers, nurses, sanitarians, and other personnel continues. Although academic instruction is available in schools of public health, they do not usually provide the essential field training in actual public-health practices. The facilities in most of the States are either inadequate or nonexistent because of insufficient demand within individual States to warrant training establishments for their needs alone.

The Public Health Service operates field or regional training facilities in cooperation with universities and State and local health agencies. These training centers are located in Atlanta, Ga.; Amherst, Mass.; Denver, Colo.; Pittsburgh, Pa.; and Yonkers, N. Y. During 1953, 118 training courses were conducted at these regional training centers which provided field training to 2,337 public health workers for a total of 18,165 trainee days. In addition, training officers are placed on temporary assignments in selected States to assist in developing and improving State public-health programs. As a result of such assignments, 15 States are now conducting their own statewide inservice training programs and 7 more are in the process of organizing active training programs. Training in various phases of specialized sanitation services is also carried on by the Enviromental Health Center in Cincinnati.

CONSULTATIVE SERVICES

The third step in translating research findings into public-health operation is through consultation. Such consultation takes the form of bringing to the State officials' attention new and improved techniques of operation and at the same time permits them to retain independence of action. It serves as a channel of exchanging information on good practices from one State to another, and of assisting in the evaluation of the progress being made toward the accomplishment of national aims for the improvement of health. These activities are carried out by personnel located principally in the regional offices.

It is our firm belief that responsibility for public health program administration should be placed as close to the people as possible. This, we believe, is true not only of those programs which are exclusively of State and local concern but also of those public-health programs which deal with the solution of health problems of nationwide concern and significance. It is for this reason that the Public Health Service operates on the basic premise of strengthening and assisting the States, and, through them, the local units of government in improving their public-health operations. Within this context, then, consultation by qualified Public Health Service personnel is made available to help the States plan, operate, and evaluate the public-health programs which they conduct.

VITAL STATISTICS

Another essential element in the process of translating research findings into community public-health operations is nationwide, as well as comparable State and local, data on the number and nature of those vital occurrences which affect the health of the people. These activities—the collection and analysis of data pertaining to births, deaths, and communicable diseases—are carried out by the national office of vital statistics.

Vital statistics have a twofold function in the management of health. First, they help the medical investigator to identify and understand his problem. Intuitive genius has made enormous contributions to our knowledge of health and medicine, but it is seldom stimulated and never proven without quantitative evidence. The number of elements that affect the behavior of the human body is so great that we can never generalize a conclusion until it can be demonstrated by averages, rates, and the measurement of probabilities in a great number of cases.

The second function of vital statistics is that of guiding the administration of prevention and curative measures. We cannot see a medicine cure an illness or a sewage system prevent infection. Only experience reduced to statistics provides the key which is essential to program planning, execution, and evaluation.

These same statistics also have similar functions in the management of many other human problems. For example, the historical statistics on births by sex and deaths by age are indispensable to estimates of the manpower yields of selective

service plans. Local, State, and national projections of school populations stem from vital statistics, and so do estimates of social or commercial insurance liability. Current vital statistics are also essential to marketing forecasts for producers of many kinds of consumer supplies.

In vital statistics, the Public Health Service provides a direct Federal service. State and local health agencies collect the certificates and other returns which are the sources of our vital data. The Federal Government produces the national statistics which provide reliable comparisons from county to county, State to State, or between our own conditions and those in other countries. Since 1947 the amount of funds available for our vital statistics operations have remained at approximately the same level. At the same time the costs of operation—salaries, tabulating cards, printing, supplies—have all risen sharply. Likewise the number of births has increased greatly during this period, adding millions of certificates to the coding and tabulating process. All possible economies of operation have been introduced, even to the point of postponing processing of essential tabulations and reducing radically the amount of detail in the routine birth statistics for 1951 and 1952.

The work plan for 1955 that underlies this budget contemplates a return to fully detailed final statistics for the births and deaths of 1953. This is considered absolutely essential because the long-term need for detail cannot be ignored indefinitely. In order to accomplish this one objective within the funds provided in this appropriation, the existing backlog of work will continue and other phases of the vital statistics activity must continue to be postponed and further delayed. It will also be necessary to reduce the content of statistics for deaths as well as for births in 1954 and 1955.

INTERNATIONAL HEALTH

The Division of International Health, which is the focal point within the Public Health Service for Service participation in international health programs, has as its principal objectives and responsibilities: (1) The development and presentation of the United States position on international health matters, the coordination of technical work involved in fulfilling United States commitments, and provision of United States representation at international conferences and meetings on health matters; (2) serves as a clearinghouse within the Federal Government for information on health conditions and needs in other countries, and on public health activities planned or conducted under multilateral and bilateral agencies and private foundations; (3) the development, review, and evaluation of bilateral health programs, and provision of personnel and technical guidance for health activities of overseas missions; and (4) the administration of programs for training foreign health personnel in the United States.

The work done by the Division in connection with furnishing personnel for technical direction of the public health divisions of overseas missions and the programing for foreign trainees sponsored by the Foreign Operations Administration, is financed by funds supplied by that agency. The funds requested in this appropriation represent approximately 25 percent of the administrative cost of the Division and are specifically required (1) to finance the direct responsibilities of the Public Health Service in technical liaison and representation with the World Health Organization, the Pan American Sanitary Bureau, and related agencies; (2) to assist the Department of State in the development of United States position on international health matters; (3) to serve as a clearinghouse for information on health conditions and needs in other countries; and (4) to cooperate with international agencies, foreign governments, nongovernmental bodies, and individuals in the administration of training programs for foreign health personnel not sponsored by Federal agencies.

Dr. HALDEMAN. Thank you, Mr. Chairman.

The appropriation "Assistance to States, general," provides funds for a variety of activities which have as their objective the provision of the best possible community health services. These objectives are carried out through (1) grants to assist in financing basic State and local health services; and (2) direct operations to assist in translating research findings into community health programs, through technical assistance which consists of chronic disease studies, training of State and local health personnel and consultative services and through vital statistics services and international health activities.

CONTROL GRANTS

Before speaking about the general health grants contained in this apprporiation, I would like to speak briefly of the total picture of control grants administered by the Public Health Service.

These grants, in addition to the general health grants, include grants for venereal-disease control, tuberculosis control, mental health, cancer, and heart activities, as well as our special grant for Alaska.

The 1953 appropriation contained a total of approximately $32,600,000 for these activities. In the current fiscal year, 1954, the total appropriation amounts to $22,600,000, or a reduction of approximately 30 percent. The fiscal year 1955 request which you are considering contains a total of $20 million, or a further reduction of 11.6 percent. However, within the total scope of these control programs, certain adjustments have been made. The total for the mental health, cancer, heart, and special Alaska grants contained in our 1955 request is at the same level as in the fiscal year 1954 appropriation. However, grants for tuberculosis have been reduced from $4,275,000 to $2 million, and grants to States for venereal disease control activities have been eliminated. Grants for general health, however, have been increased from $10,135,000 in fiscal year 1954 to $11,760,000 in the 1955 request—an increase of $1,625,000 over fiscal year 1954. This is, however, $1,240,000 below the level of general health grants in 1953.

This adjustment has been made because the general health grants are more flexible in the manner in which they can be used by State health departments for programs of highest priority. They will be used in some instances for venereal disease and tuberculosis activities, where those programs in a State have high priority and where there are not sufficient funds from other sources to support these programs.

General health grants for the basic public health activities form the backbone of the organization of State and local health department activities. These basic activities serve as a framework to which can be added specialized programs such as venereal disease control, tuberculosis control, mental health, child health and other specialized activities as local circumstances warrant. They also serve as a framework around which emergency health and sanitation services are built.

TECHNICAL ASSISTANCE

Our technical assistance activities include several steps of direct Federal operation which have as their objective the more rapid translation of knowledge into actual community practice. There is always a lag between the development of new knowledge or basic research and the time when it is applied and reaches people in active community health programs. These activities of technical assistance are designed to decrease this time lag to the greatest possible degree. The steps in our technical assistance activities are (1) applied research; (2) demonstration or pilot plant operations; (3) training activities; and (4) consultation.

The first two steps, applied research and demonstration, contained in this appropriation are for chronic disease activities. Chronic diseases today constitute our most costly public health problem. It has been estimated that there are at least 34 million people suffering from some form of chronic disease today. This number will increase as our

population increases. In addition, it is estimated there are public expenditures of over $1.5 billion a year for hospital and medical services associated with chronic diseases. There is an additional $1.5 billion a year spent in cash benefits for persons suffering from chronic diseases.

An example of our current chronic disease activities is the study and prevention of diabetes. This study is being conducted cooperatively with the Children's Bureau, a State health department, a local health department, a university, a State hospital and various specialist groups. It has been estimated that there are over 2,400,000 diabetics in the United States today, and that 100,000 new cases are occurring each year.

Through the study of case histories and clinical research, it has been suggested that there is a possible association between the development of a high-blood sugar level in pregnant women, and the number of miscarriages and stillbirths and the occurrence of diabetes in the offspring. So a possible solution of the diabetic problem is suggested on the following hypothesis: That the early detection of high-blood sugar in pregnant mothers, plus diet and insulin therapy will relieve the strain on the pancreas of mother and child, and thereby reduce the number of stillbirths and also reduce the number of cases of diabetes in mother and child.

To me the really exciting possibility of this study, if the hypothesis proves correct, is that we will have found a method of preventing diabetes before the child is born. If the hypothesis proves correct, we will then follow the usual pattern of demonstration, in order to develop an acceptable method of community application; of training people in the technique; and of consultation.

The third step is the translation of knowledge to active community practice and training.

Each new activity which has public health application brings up anew the problem of training State and local health personnel in its application and use. In addition, there is much training that must be carried on to qualify existing personnel for the most effective and economical performance of their duties in continuing health problems. Many States cannot economically support a field-training program for the use of one State alone. An example of this is housing and insect and rodent control, training activities.

Activities under this appropriation are carried out largely in the Communicable Disease Center in Atlanta, in the Sanitary Engineering Center in Cincinnati and in five small field-training centers located throughout the country. In addition, we have a few training officers assigned to individual States for a limited period of time to assist the States in developing and improving their own training courses.

The fourth step in the translation of knowledge into practice is consultation. Through consultation, we are able to bring to the State and local health departments knowledge of research and investigations occurring not only outside the Public Health Service, but also the results of our own private studies and demonstration. For instance, if a State or local community is planning a diabetes-detection program, we are able to make available, for a week or two to get the program going, the services of a team experienced in setting up community programs in diabetes control.

VITAL STATISTICS

Another activity supported by this appropriation is the service of the National Office of Vital Statistics. The National Office of Vital Statistics is responsible for the collection and analysis of data relating to births, deaths, and communicable diseases. National vital statistics are a valuable tool in both research and program planning. They are used not only by individuals, universities, and private and public agencies in the field of public health and medicine, but are also used by groups in social science and in business. Examples in the field of medicine and public health include the measurement of the problem of communicable diseases such as polio, psittacosis, and rabies; of chronic diseases such as diabetes, heart, or cancer, and in the field of sanitation from the standpoint of how often waterborne outbreaks are causing morbidity.

They also measure the progress made in our various public-health programs, such as cancer control, tuberculosis control, or accident prevention—from the standpoint of highway accidents, or accidents to children, or household accidents. They are also used in determining life expectancy and the incidence of illness.

Vital statistics are also used as a basis for social action in determining need for schools and for hospitals; in forecasting the available manpower for industry and for military purposes; or in forecasting costs of social security and education.

Business uses vital statistics in determining markets for infant necessities, medicines and drugs, household equipment, and the like; in determining trends in insurance risks, both for life insurance and for health insurance; and in making long-term forecasts of housing needs and food needs.

Since 1947, when the National Office of Vital Statistics was transferred to the Public Health Service from the Bureau of the Census, the budget has stayed approximately the same. At the same time, the cost of doing business, both in salaries, and supplies and equipment, has increased tremendously. Morbidity-reporting activities have also been transferred to NOVS, and the number of births has increased—which has increased the cost of tabulating vital statistics. This has resulted, particularly in recent years, in a considerable curtailment of the activities of the National Office of Vital Statistics.

I will be happy to attempt to answer any questions.

BUDGET REQUEST

Mr. BUSBEY. Dr. Haldeman, the request for fiscal 1955 is $15,039,000; in other words, an increase of $1,789,000 over last year's appropriation.

Dr. HALDEMAN. That is correct.

Mr. BUSBEY. The significant changes are the increases of $1,625,000 for grants to States and $120,000 to cover the cost of the international health activity transferred from the Surgeon General's Office.

Dr. HALDEMAN. That is correct. Taking into consideration the $120,000 transferred from the Office of the Surgeon General, the request contains a total increase of $1,514,000, of which there is an increase requested of $1,625,000 in our grant item and a reduction of $111,000 in our direct operations over fiscal year 1954.

Mr. BUSBEY. Referring to your statement at the bottom of page 6 under the heading "Technical assistance to States," what other appropriations are there in the Public Health Service for technical assistance to States?

Dr. HALDEMAN. Mr. Chairman, the technical assistance activities are contained in a number of appropriations to the Public Health Service. These include appropriation for "Assistance to States, general"; "Control of venereal diseases"; "Control of tuberculosis"; "Control of communicable diseases"; "Engineering, sanitation, and industrial hygiene"; the special appropriation for Alaska; as well as small amounts in the appropriations to the National Institutes of Health in heart, dental health, cancer, and mental health activities.

Mr. BUSBEY. How much in total is included in the 1955 budget for the Public Health Service, and how many positions?

Mr. ACKERMAN. In technical assistance, $13,866,235.

Mr. BUSBEY. Could you supply for the record a table showing a breakdown of the total amount in dollars and also positions?

Mr. ACKERMAN. Yes, sir; we have such a table.

Dr. HALDEMAN. I might say that represents a decrease over 1953 from 2,009 positions in 1953 for certain activities in the Bureau of State Services, to 1,185 in 1955, or a reduction of 824 positions.

Mr. BUSBEY. When you prepare the table for the record would you show 1953 and 1954 as well as the budget figures for 1955?

Dr. HALDEMAN. Yes, sir.

(The information referred to follows:)

Cost of technical assistance to States

Appropriation title	1953 actual		1954 estimate		1955 estimate	
	Position	Amount	Position	Amount	Position	Amount
Assistance to States, general [1]	508	$3,054,641	467	$3,165,000	450	$3,059,000
Control of venereal diseases [2]	528	2,797,850	366	2,268,500	259	1,590,000
Control of tuberculosis	232	1,678,722	168	680,000	79	485,000
Control of communicable diseases [3]	1,118	5,361,676	932	4,559,000	789	3,997,000
Engineering, sanitation, and industrial hygiene [4]	416	2,789,543	321	2,252,500	321	2,235,000
Disease and sanitation investigations and control, Territory of Alaska	18	120,488	14	108,000	14	102,000
Salaries and expenses, hospital construction services [5]	148	1,096,174	103	772,000	89	658,235
Salaries, expenses, and grants, National Cancer Institute	79	349,371	79	393,000	79	393,000
Mental health activities	59	387,050	59	397,000	59	397,000
Salaries, expenses, and grants, National Heart Institute	57	337,558	50	297,000	50	290,000
Dental health activities	119	788,139	101	706,000	98	660,000
Total	3,282	18,761,212	2,660	15,598,000	2,287	13,866,235

[1] Includes vital statistics activity (1953, 187 positions, $1,089,849; 1954, 186 positions, $1,286,000; 1955, 186 positions, $1,295,500).

[2] Includes grants of services and supplies for venereal disease control for comparability with 1955 budget (1953, $1,955,437; 1954, $1,523,500).

[3] Includes general disease—prevention and control activities (1953, 856 positions, $4,176,957; 1954, 737 positions, $3,484,000; 1955, 638 positions, $3,127,000); specific disease—prevention and control activities (1953, 262 positions, $1,144,063; 1954, 195 positions, $1,035,000; 1955, 151 positions, $830,000); and general epidemic and disaster aid (1953, $40,656; 1954, $40,000; 1955, $40,000).

[4] Includes industrial hygiene (1953, 94 positions, $638,596; 1954, 78 positions, $550,000; 1955, 78 positions, $532,500); water supply and water pollution control (1953, 190 positions, $1,294,080; 1954, 120 positions, $903,500; 1955, 120 positions, $903,500); and general sanitation activities (1953, 132 positions, $856,867; 1954 123 positions, $799,000; 1955, 123 positions, $799,000).

[5] Operations and technical services activities.

Mr. BUSBEY. At the top of page 8 of your prepared statement where you say—

Chronic disease studies will also be carried on in the field of diabetes, a disease which affects about 2 million people half of whom do not know they have the disease.

at first blush that sounds a lot like the work of the National Institute of Arthritis and Metabolic Diseases. I have just been looking over this two and a half page statement regarding their work in that field, which we will put in the record at this point; is that where that activity belongs?

(The statement referred to follows:)

DIABETES RESEARCH NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES EXTRAMURAL

The field of diabetes offers many problems for research. Although insulin and/or diet may control certain cases, there are still large gaps in our knowledge concerning many aspects of the disease. Unsolved questions relate to the cause of the disease; the influence of heredity; biochemical and physiological changes in the body fluids and cells; the early recognition of the disease; the mode of action of insulin; the causes of the degenerative complications such as gangrene and cataracts of the eye. New methods are constantly being utilized or devised in the attack on these problems. It is possible to produce diabetes in experimental animals; radioactively labeled insulin and glucose are now available; and refined chemical technics have been developed which enable a better study of the fate of sugars and fats in the body.

Some examples of projects in this field being supported by the National Institute of Arthritis and Metabolic Diseases follow:

The first measurements of the quantitative relation between a hormone and its metabolic effect upon a specific process have been achieved by investigators at the University of Pennsylvania in research supported by an NIAMD grant. They have developed and described methods for the preparation of radioactively labeled insulin, by means of which the insulin's mechanism of action can be studied in the body, and have located in muscle tissue a site where the action of insulin may take place.

Fructose, a sugar found in sweet fruits, has been found to be better utilized in the diabetic patient's system than is glucose. Injection of fructose has been found to be of value in the treatment of patients in the initial phases of diabetic acidosis, a severe complication of the disease. Comparison of the action of the fruit sugar, as compared with glucose, in both normal and diabetic patients, is producing further information about the intermediary metabolism of sugars. The work, conducted at Western Reserve University, under an NIAMD grant, is continuing.

The degenerative complications of diabetes are being studied in dogs at the University of Chicago. A total of 32 diabetic dogs have now survived from one to over 6 years; 84 percent of these animals have developed cataracts of the eyes and various other abnormalities have resulted from the diabetic process. Among these are coronary artery disease and various kidney lesions. A number of procedures are being used to ascertain the mechanisms of the formation of the abnormalities and various substances are being tried in order to prevent their development.

An investigator at the University of Cincinnati is studying methods for the detection of the patient who may later develop diabetes. One interesting outcome of this work is the discovery that there is a greater incidence of excessively large babies born to prediabetic mothers than by mothers who never become diabetic. A careful study of this group before and during development of diabetes promises to turn up new methods for early detection of the disease as well as the possibility of the discovery of the predisposing cause.

Scientists at Western Reserve University working with diabetic rats have found that spontaneous recovery from diabetes may occur 12 to 18 months after the production of the disease. These investigators are attempting to determine the causes of this spontaneous cure with the hope that such findings may have a bearing on treatment of humans with the disease.

There remains much to be learned about the action of insulin on various sugars in the body. Investigators at the University of Southern California, using one of the most important sugars, glucose, which has been made radioactive, are studying in experimental animals, its distribution throughout the body and the effects of insulin on this.

Research workers at the University of Iowa are studying the long-term effects of diabetes in humans. Approximately 200 diabetic children who have been under observation since the onset of the disease have been subjected to exhaustive chemical and clinical examinations at 6-month intervals. It is hoped most of these patients will be continued on this study for 30 or more years. In this manner a more complete knowledge of the complete life history of treated diabetes will be available.

The mechanisms of formation of diabetic cataracts is being studied in animals at Western Reserve University in an attempt to find some substance which will protect against this serious complication. There is some evidence that the addition of certain amino acids (protein-building blocks) may offer protection against this form of blindness.

Investigators at Johns Hopkins are studying human patients with diabetic cataracts in an attempt to discover whether certain hormones have to do with the formation.

In fiscal year 1951, 10 diabetes research projects were supported by NIAMD for a total of $71,649. In fiscal year 1952, $91,826 was awarded for 16 projects, and in fiscal year 1953, 12 projects for $96,769. So far in fiscal year 1954, 23 projects have been approved by the National Advisory Arthritis and Metabolic Diseases Council for a total of $172,669, and from requests on hand plus those estimated to be received, an additional $200,000 will be awarded for this purpose, making an estimated total of about $375,000 to be awarded from fiscal year 1954 research funds. This exceeds the total awarded for the combined three previous fiscal years. With more time for stimulation of interest, and development of research potential, it is estimated that this amount will be doubled in fiscal year 1955.

In the traineeship program, 8 trainees in diabetes have been appointed to date, and estimates are from 8 to 10 additional for this fiscal year. This would amount to a total round figure of $60,000 for the training program in diabetes. Five research fellows in diabetes have been selected and 5 to 8 additional fellows are estimated, for a total of $45,000.

In all three programs, therefore, the total amount awarded in the field of diabetes would approach half a million dollars.

INTRAMURAL

In addition there is an active program in diabetes research being carried on in the laboratories of the National Institute of Arthritis and Metabolic Diseases at Bethesda.

Dr. Evelyn Anderson and coworkers have devised a biological method for the measurement of very small amounts (three one-millionths of a unit) of insulin in blood. This method is based on the observation that diabetic mice which have had their pituitary glands removed are extremely sensitive to insulin. In such animals, the injection of small amounts of blood containing normal amounts of insulin cause a drop in the blood sugar. The amount of the insulin in the blood can thus be measured quantitatively. With this method it should be possible to answer many fundamental questions concerning the cause of diabetes, the mode of action of insulin, the reason for resistance of some patients to insulin, etc. Clinical studies are in progress at the present time with diabetic patients on methods for measuring the hyperglycomic factor (an antagonist to insulin) in blood and on the influence of the fat and carbohydrate levels of the diet in the prevention of ketosis (which might lead to diabetic coma).

In fiscal year 1951, $19,000, in fiscal year 1952, $31,800, and in fiscal year 1953, $48,000 was spent intramurally for the support of diabetes research. In fiscal year 1954 it is estimated that between $60,000 and $70,000 will be spent.

Mr. BUSBEY. Why should this work be divided?

Dr. HALDEMAN. There is a rather fundamental difference between the research being done at the National Institutes of Health and that being done in the Bureau of State Services. In the Bureau of State Services we are particularly interested in the field application of the

findings of more basic research. The studies that are being done under this appropriation are those that are not being carried out by the Institute and are of a type particularly suitable for work in cooperation with State and local health departments in the field application of research findings.

Our Division of Chronic Diseases is the division in the Public Health Service that gives attention to chronic diseases on a very broad front. Many factors are common to various chronic diseases when it comes to field application, for instance, the training of individual patients, whether diabetic, or cardiac, or arthritic, by State and local health departments. Such activities are carried on simultaneously for several programs, and our Division of Chronic Diseases tries to look at the whole field of chronic disease in its application to State and local health departments on a fairly broad base.

Hygiene of the Aging

Mr. Busbey. At the top of page 10 of the justifications you have a section on "Hygiene of the Aging." In last year's budget there were several transfers to the Secretary's Office that I though were for the purpose of centralizing work aimed specifically at the problem of the aging; but this seems to indicate it is still scattered around over the Department. What can you say to enlighten the committee on that situation?

Dr. Haldeman. Our activities on aging in the Division of Chronic Disease and Tuberculosis are very small. They are aimed directly at consultation with individuals in State and local health departments in the development of health department programs for meeting the needs of older people. There is no overlap with the activities in the Department.

I am not in a position to discuss the direct activities of the unit at the Department level.

Mr. Rockefeller. Practically every constituent, and many of their divisions and bureaus, have direct dealing with problems of the aged, and the unit that was established in the Secretary's Office is a coordinating unit and a unit which works with organized groups on aging throughout the country, to help provide them with background information of knowledge and facilities that the Department has as a whole. So it is not a competitive unit in any sense, or a duplicating unit: it is a coordinating unit.

Training Center Activities

Mr. Busbey. At the bottom of page 8 of your prepared statement, in the last paragraph you say:

> The Public Health Service operates field or regional training facilities in cooperation with universities and State and local health agencies. These training centers are located in Atlanta, Ga.; Amherst, Mass.; Denver, Colo.; Pittsburgh, Pa.; and Yonkers, N. Y. During 1953, 118 training courses were conducted at these regional training centers which provided field training to 2,337 public health workers for a total of 18,165 trainee days.

Just what is this cooperative activity, Dr. Haldeman? What part does the Public Health Service assume responsibility for and what part do others assume responsibility for?

Dr. HALDEMAN. The New England training center located at Amherst, Mass., for example, is conducted in cooperation with the University of Massachusetts and the Massachusetts State Health Department. It provides training in a variety of activities for the New England area. The Public Health Service contributes a training officer, sometimes two; the university provides its usual physical facilities and assistance from various units of its staff in certain of the field aspects. Either the university or the State health department usually provide clerical assistants. The type of courses given covers a rather wide variety of subjects. I mentioned in my opening statement training in housing and in insect and rodent control. There is also training in the various fields of sanitation and biological evaluation of various types of wastes. It is a field training program primarily where people learn by doing rather than solely a classwork type of training.

VITAL STATISTICS

Mr. BUSBEY. On page 11 there are two statements regarding the work on vital statistics which I think need a little explanation. In the last sentence of the first paragraph you say:

> All possible economies of operation have been introduced, even to the point of postponing processing of essential tabulations and reducing radically the amount of detail in the routine birth statistics for 1951 and 1952.

Then, skipping the first sentence, in the next paragraph you say:

> In order to accomplish this one objective within the funds provided in this appropriation, the existing backlog of work will continue and other phases of the vital statistics activity must continue to be postponed and further delayed. It will also be necessary to reduce the content of statistics for deaths as well as for births in 1954 and 1955.

In the 1954 budget you received $200,000 more, or about 20 percent more, than you received in 1953. If I recall, when you were explaining the charts you made the statement that this appropriation remained about the same.

Dr. HALDEMAN. Yes, Mr. Busbey, I did. The reason for the apparent increase in 1954 over 1953 relates to the provision regarding penalty mail.

Mr. ACKERMAN. There is no change in the positions of NOVS. In 1953 there are 187 positions and in 1954 there are 186.

Mr. BUSBEY. To what does the penalty mail amount?

Mr. ACKERMAN. The penalty mail in 1954 amounted to $155,000.

Mr. BUSBEY. For what are you using the other $45,000?

Mr. ACKERMAN. The difference in funds—I would have to check that statement, but the difference in funds is between $1,089,849 and $1,286,000.

Mr. BUSBEY. I did not subtract it, but it is approximately $200,000. You might supply a statement for the record on that.

Mr. ACKERMAN. All right.

(The requested statement follows:)

Explanation of increase in funds for National Office of Vital Statistics

1953 actual	$1,089,849
1954 estimate	1,286,000
Increase	196,151
Personal services: Increase of the average employment for processing detailed statistics of births and deaths	5,300
Travel: To conduct operations of the Public Health Conference on Records and Statistics, and initiate long-range measures for the eventual reduction of statistical processing costs by joint Federal-State action	15,500
Communication services: Penalty mail costs pursuant to regulations prescribed by the Postmaster General under Public Law 286, 83d Cong	151,000
Rents and utility services: Increased cost of renting tabulating equipment	2,400
Printing and reproduction: The Vital Statistics in the United States for 1950 published in fiscal year 1954 totals nearly 400 pages more than the usual annual report because it relates vital and health statistics to the decennial enumerated population data of the Census Bureau	3,851
Other contractual services: Purchase of data from the Bureau of Census used to complement registration data in vital statistics reports	12,000
Equipment: Replacement of obsolete film readers and card-punch desks	6,100
Total	196,151

PUBLICATIONS OF OFFICE OF VITAL STATISTICS

Mr. BUSBEY. I note you made the statement you were not able adequately to do the primary job of reporting births and deaths and I have before me here a very sizable stack of publications that have been put out during the first 6 months of 1954. It seems to me if this publication activity was looked over with a view to cutting out that which is not necessary and eliminating the duplication, you would not have so much trouble meeting your primary job of reporting births and deaths.

What do you have to say to that?

Dr. HALDEMAN. The large item of cost in the National Office of Vital Statistics relates to the processing of the individual birth and death records. Once you have your cards punched and tabulated, the analysis of the data in a given fiscal year is not a large item in the budget. It is this processing of vital statistics which is a constant itemization of the number of deaths and the number of births that has us in this somewhat embarrassing situation.

We have had to attack the problem of reducing the amount of time spent in the processing of this data. To that extent, we have had to go to a 50-percent sampling of births and have eliminated the coding for the place of residence on death certificates. Eliminating the coding for the place of residence does not permit us to give data reallocated back to the place of residence which will enable a town like Baltimore, for example, to adequately analyze that data. It does not give us good data refinements between rural and urban areas, because the place of either the birth or death in the majority of instances is in the urban area. So we are adjusting our schedule in terms of processing by annual statistics to bring them in line with our

actual operating budget. In order to do this, we have had to drop many activities which we feel are very important. We have stopped our accident studies and a number of other studies. We have almost completely eliminated consultative services to States, which we feel is very important, because in this field uniformity State by State is very esential to good national statistics.

WEEKLY PRESS RELEASE

Mr. BUSBEY. I have before me here a weekly press release on communicable diseases and also, for the same week, the publication Morbidity and Mortality. The publication Morbidity and Mortality seems to carry practically the same data and information as is carried in the press release that is gotten out every week. I think there is a question as to why you need both of them. In dollars and cents it may be a small item; on the other hand, you seem to have enough of these small items to total a sizable sum at the end of a year.

Why is it necessary to publish both of these?

Dr. HALDEMAN. I appreciate the point you make. The National Office of Vital Statistics has, I think, a dual function in this regard: First, it is obligated to get out promptly to State health officers the incidences of illness occurring particularly in those diseases in which epidemiologists and State health departments are vitally interested. Second, it also has a responsibility, I think, to the American public to make available national data.

I think the only reason for having the two documents is that there are occasions when you wish to include a more detailed account or more technical account in information going to official State health agencies.

Mr. BUSBEY. I am not singling out the Office of Vital Statistics particularly; I think it is true all through the Government that there are just too many people getting up data and information and reports and press releases to be published. While they are all nice and may all serve a certain purpose, in many cases I just do not think it is particularly justified on the basis of cost compared to value.

Dr. HALDEMAN. May I speak to that to make just one further point? Last summer, as you will recall, the National Office of Vital Statistics collected data which was responsible for the national allocation of gamma globulin which, as you know, is a very scarce commodity. In that instance, of course, we had both a public relations problem and a responsibility to the State health officers. That was the sort of situation I was referring to in regard to the necessity for having two publications.

Mr. BUSBEY. I agree there may be good justification in certain instances, but I still feel publication activities can be reviewed and substantially curtailed without hurting any program.

VITAL STATISTICS CONFERENCE

Now you recently had a conference with the various States here to discuss vital statistics?

Dr. HALDEMAN. Yes, sir.

Mr. BUSBEY. Tell us briefly about that, please.

Dr. HALDEMAN. The annual Conference on Records and Vital Statistics—or, rather, it is every 2 years at the present time—is the

working group that the National Office of Vital Statistics utilizes in approaching problems of mutual interest.

I might mention one thing that was discussed in some detail at this meeting, to give you an illustration—an attempt to reduce the cost of the tabulation of these vital statistics. We have been trying to encourage the States to prepare State punched cards in the field of birth statistics that can be utilized by the National Office of Vital Statistics in its tabulations. I won't go into the problems involved unless you wish, but they are numerous. One of them is getting a uniform code and procedure to be used by the States. This year we hope to have several States prepunching cards which they will send to us. This will help us in making economies. That is one example of the activity of this annual working conference.

They also take up all aspects of vital statistics; for instance, the manner in which causes of death are coded. For national statistics to be meaningful, there must be uniformity of interpretation. As I think I said in my earlier testimony, probably none of our areas in public health requires more consistency State by State in order for the national function to be carried out effectively.

Mr. BUSBEY. How many States were represented at that conference?

Dr. HALDEMAN. I can supply the answer for the record.

Mr. BUSBEY. Approximately.

Dr. HALDEMAN. I believe probably all States and perhaps most of the Territories.

SOURCES OF MORBIDITY DATA

Mr. BUSBEY. Now I have here a publication entitled "Sources of Morbidity Data." It is quite a sizable abstract. From where did the funds come for this publication?

Dr. HALDEMAN. I cannot answer that question. I would assume the costs were borne out of an appropriation to the National Office of Vital Statistics. [After examination.] This publication was prepared by the staff of the Division of Public Health Methods.

Mr. BUSBEY. Did that come out of Public Health funds, Dr. Scheele?

Dr. SCHEELE. I will have to check that; I do not know. We suspect this was paid for out of public-health-method funds which are part of the S. and E. in the Office of the Surgeon General.

Mr. BUSBEY. Should not this be paid for out of funds of the Office of Vital Statistics?

Dr. SCHEELE. It could be.

Mr. BUSBEY. It seems so to me, anyway.

"WHERE TO WRITE FOR BIRTH AND DEATH RECORDS"

Now here is another publication entitled "Where to Write for Birth and Death Records." It seems to me the place anybody would write for birth and death records would be to the county clerk, or some department of the city, if they live in a place like in Chicago. In Chicago, we have a Department of Vital Statistics.

Dr. HALDEMAN. Mr. Chairman, you are of course familiar with the needs for being able to prove where you are born, and to prove your age; so it is not a question, I am sure, in your mind of the frequency with which this inquiry is made. I can only say that because of the frequency with which the National Office of Vital Statistics gets

inquiries and the amount of time it takes to handle that type of inquiry, we felt justified in having a document that we could simply send out in an envelope in answer to the inquiry.

Mr. BUSBEY. How many inquiries did you have on this in fiscal year 1953? You can furnish that for the record.

Dr. HALDEMAN. I will be glad to supply that.

(The information referred to follows:)

In 1953 the National Office of Vital Statistics mailed 1,040 copies of this leaflet to persons who requested that Office to send them certified copies of vital records.

REPRINT OF HOUSE DOCUMENT 242

Mr. BUSBEY. I notice that under date of October 28, 1953, you reprinted House Document No. 242. No doubt this is helpful, but I am trying to reconcile in my mind why you would be reprinting such a House document when you say you do not have enough funds for your primary work. The document is entitled "Measures Relating To Vital Records and Statistics."

Dr. HALDEMAN. I am not familiar with the document. May I supply the answer for the record?

Mr. BUSBEY. I do not think if you are as short of funds as you claim, that this Department ought to be reprinting House documents.

"UNIFORM DEFINITIONS OF MOTOR-VEHICLE ACCIDENTS"

Mr. BUSBEY. Here is another document entitled "Uniform Definitions of Motor Vehicle Accidents." It is quite extensive and goes into quite some detail on this subject. I am just going to read one item for the record entitled, "Flying or Falling Object":

If damage to a motor vehicle or injury to an occupant of a motor vehicle is caused by an object set in motion by another motor vehicle, the injury or damage is classified as a motor-vehicle accident.

If damage to a motor vehicle or injury to an occupant of a motor vehicle is caused by an object set in motion by some force other than another motor vehicle, the accident shall not be classified as a motor-vehicle accident. This includes objects thrown through the window of a car; a falling tree, etc. Bee stings and other insect bites are similarly classified.

However, if an occupant is struck by an object set in motion by some force other than that of another motor vehicle, and if, as a consequence, the vehicle becomes involved in an accident (car runs off the road or hits another vehicle, causing injury or property damage), the accident is classified as a motor-vehicle accident. If a driver receives a slight injury from a flying object and runs off the road, receiving fatal injuries, his death is classified as a motor-vehicle accident death.

And so on through the pamphlet which is a 20-page booklet on motor-vehicle accidents. Again I raise the question why money is being spent for publications like that when you do not have funds to carry on your primary work. In addition to the cost of publication, it takes time for people to do the research and to write and compile a booklet like that.

Dr. HALDEMAN. Mr. Chairman, accidental deaths in the country cost more man-years of lives lost in terms of life expectancy than any other cause. One of the activities of the National Office of Vital Statistics has been cooperating in studies on causes of automobile accidents. In order to obtain adequate basic information, which can be used as a basis for program planning, it is necessary to have good

data regarding accidents as to where and how they are being caused and what the circumstances are, to be used as a basis in the development of community programs.

In the course of our studies on accidental death due to motor-vehicle accidents, it is necessary to define your terms rather carefully for the use of the people doing the tabulations in order to have comparable data. This type of study is something that the National Office of Vital Statistics feels is a very important part of their activities.

Mr. BUSBEY. You have 20 pages of extremely detailed definition just like the one I read entitled "Flying or Falling Object." Do you really think that some local person who is charged with the responsibility of classifying accidents is going to refer to this booklet and find out how he is to classify it, rather than just using his common sense?

Dr. HALDEMAN. No, sir. The method of utilizing these definitions is somewhat as follows: The death certificate does not have sufficient information, really, to do an analysis of the circumstances surrounding an accident, and a special questionnaire is sent back to the State for the State officials, including those responsible for highway safety, to fill out. From that questionnaire the data is then tabulated in accordance with the definitions outlined in that booklet.

Mr. BUSBEY. Do not the various State departments have some kind of a form where they can check things off at the time of the accident, and which is filed away and can be used for that purpose?

Dr. HALDEMAN. The purpose of the study is to determine the circumstances surrounding the accident; in other words, what the relationship is to blowouts, and the blowouts of which tire.

Mr. BUSBEY. This question of publications is one that has been coming up year after year in this committee and frankly I do not see a great deal of progress being made in the Department to eliminate what I consider unnecessary publications.

Now will you inform the committee just what has been the result of having published this document on motor vehicle accidents?

Dr. HALDEMAN. The National Safety Council, which is the national group interested in highway accidents, has been looking to us to give them the basic data which they utilize as a basis for their national campaigns. Likewise, the data which we have analyzed has been used by various State and local official agencies in their highway safety campaigns.

Mr. BUSBEY. Do you have any proof of that?

Dr. HALDEMAN. I believe I could supply for the record the relationship with the national association and a statement also of the ways in which the data is used by other agencies.

Mr. BUSBEY. It is not that; I am not so much interested in that as I am in the results. What has been accomplished; what has been the result of this? Surely these associations like you to do these things as long as they get publications printed free of charge by some Department of the Government; but I wanted to know if there were any results.

USE OF NOVS STATISTICS BY OTHER PUBLIC HEALTH DIVISIONS

Are the statistics developed through the National Office of Vital Statistics being used fully by various programs of the Public Health Service?

Dr. HALDEMAN. I think the answer to that is that the pressure from the operating divisions in the Public Health Service is always for better, finer breakdowns and for more data than the national office is able to furnish them.

Mr. BUSBEY. But are they being fully used by the various programs in the Public Health Service?

Dr. HALDEMAN. I think so.

Mr. BUSBEY. Give us an example.

Dr. HALDEMAN. Well, as an example, the National Heart Institute is very desirous of our giving better information regarding the various classifications of heart disease in terms of age distribution, sex distribution, and geographic distribution. There are, for instance, only slightly over 2,000 deaths a year due primarily to rheumatic fever and they would like for us to obtain much more complete information regarding deaths due to rheumatic fever, to be used as a basis for program planning, than is possible from our present tabulations from the basic data we get.

Mr. BUSBEY. Are there any other examples?

Dr. HALDEMAN. In our total area of morbidity reporting, we have a very real need from the standpoint of our Communicable Disease Center and others interested in communicable disease control to get much more complete reporting of communicable diseases. We have not been able to work with the States in the field of morbidity reporting in the fashion that we have in mortality and birth reporting from the viewpoint of completeness of reporting on the diseases.

Another example which I think is very important relates to information regarding causes of fatal deaths and early deaths among children. Our major gain in public health has been in preventing deaths in the age group from approximately 1 month up to 40 and 50 years. At the other end of the scale, the deaths of people due to chronic disease or deaths occurring in the late months of pregnancy and fetal deaths are really areas which we in public health are going to have to give greater attention to in the future.

One area in which there is a great deal of desire that we do additional work is going back, somewhat in a similar fashion to what we have done in our highway accident studies, and finding out more of the factors that are present in these fetal deaths and early deaths in the first months, the circumstances surrounding the condition of the mother, and the condition of the fetus in the stillborn child.

The more detailed information that we could obtain regarding the circumstances would give us the leads that the people need in order to begin to direct their program activities in a fashion which will do the most good.

Another area is in relation to chronic diseases in terms of multiple causes of death. The single cause of death which we use is all right in the earlier years, but in the case of most folks who die in the later years death is due to a combination of causes. So doing an analysis simply of the first cause of death leaves us without a lot of desirable information needed for study and investigation.

Mr. BUSBEY. What do the program people do in gathering statistics they are interested in? You mentioned the Heart Institute as an example: Do not they gather some statistics, or do they rely entirely on you?

Dr. HALDEMAN. For mortality data, they utilize the National Office of Vital Statistics.

STATISTICAL WORK OF OTHER PHS DIVISIONS

Mr. BUSBEY. Dr. Scheele, what about the other statistics? Do not the various divisions of the Public Health Service do some gathering of statistics?

Dr. SCHEELE. Yes, sir, they do. The Cancer Institute, for example, has done an epidemiological study of cancer and has done an incidence study in 7 or 8 major cities, in part of the effort to determine what the actual number of cases of cancer at any one time might be, in order to measure their problem. This is done by the Cancer Institute in this instance, because of their special interest in the problem, and because the National Office of Vital Statistics is just not set up to do that kind of operation. Their operation is much more built around a Federal-State-local chain of flow of vital data which come from the recorder in the county or State to the State Vital Records Office and then are assembled in the National Office in Washington. But the pinpointed study——

Mr. BUSBEY. That is what I am trying to get cleared up in my mind. Where is your line of demarcation between other branches of Public Health Service and the Bureau of Vital Statistics, and what do you do to be sure there is no duplication or overlapping of work?

Dr. SCHEELE. We are very careful in this matter of watching out for overlapping and duplication. We are very conscious of the fact it could occur and we have controls through committee operation and central screening of those projects.

The National Office of Vital Statistics does not have a broad enough staff, does not have certain kinds of specialists who are present in the National Institutes of Health. It is for that reason that it is more appropriate in our opinion to do some of these pinpointed, one-time studies that are not just matters of collecting weekly or monthly or annual data, but to do this in relation to the type of institute that has a special interest in contrast to the work of the National Office of Vital Statistics in the collection of data or the uniform reporting of causes of highway vehicle accidents.

Mr. BUSBEY. It is your judgment, then, that it is better to do it that way rather than bringing it together under one head in the Office of Vital Statistics?

Dr. SCHEELE. We believe it is more economical to do it the way we are doing it. We believe it is probably more efficient to do it the way we are doing it, than to centralize it.

I do not mean to depreciate in any way the Director of our National Office of Vital Statistics and his ability, but there is a difference in the general focus, that office having to do with data collected from State registrars, county and State registrars, whereas these other problems are somewhat different. They are more in the nature of being a different kind of research.

Mr. BUSBEY. I am not going to take up the time of you gentlemen here this morning, or the time of the committee, to go through all of the various pamphlets that are here. Since two Assistant Secretaries are present this morning, I will say that I sincerely hope this field will be examined very carefully throughout the Department. I will

be most happy, if I am still on this committee next year, to have a report back that some progress has been made along this line.

Mr. ROCKEFELLER. You are speaking now of the publications and statistics, both?

Mr. BUSBEY. Principally the publications, because naturally I would have to leave it to the judgment of the Department as to which is the best way to gather these statistics. I was just trying to explore it to see what the situation was.

Mr. ROCKEFELLER. I think the Secretary mentioned when she was here that there is a study under way relating to the whole question of Department publications and that she would make that available, and I think Mr. Fernandez asked that a copy be made available and she stated it would be done.

INTERNATIONAL HEALTH ACTIVITIES

Mr. BUSBEY. On the last page of your statement, Dr. Haldeman, you deal with your international health activities. There is $120,000 for this activity in the appropriation request, but I notice you also expect to get $261,000 from other departments and agencies.

Dr. HALDEMAN. That is correct.

Mr. BUSBEY. Why should not all of this come from FOA and the Department of State; why do we have this split up in two sums like this?

Dr. HALDEMAN. The reason for the direct appropriation is that it seems to be a well-established principle that the technical phases of our international activities are a direct responsibility of the appropriate technical agencies subject to coordination in the executive branch by the Department of State.

Now, for the activities which we carry out under the bilateral programs conducted by the Foreign Operations Administration, we do get reimbursed. However, from the standpoint of our multilateral appropriations, like WHO and the Pan American Sanitary Organization, we get a direct appropriation. This is a pattern which is similar, I think, to that in the other executive departments; for instance, the Department of the Treasury in connection with the various international monetary organizations; the Department of Commerce in regard to international aviation organizations, and I think the Departments of Labor and Agriculture likewise. So it appears to be a common pattern.

REASONS FOR TRANSFER

Mr. BUSBEY. Why is this being transferred to this appropriation from the Surgeon General's Office?

Dr. HALDEMAN. It was transferred primarily because the Division of International Health has a responsibility for recruitment of State and local personnel for overseas assignments. The Bureau of State Services is the Bureau within the Public Health Service that is sensitive to the needs of State and local health departments. One of our objectives in recruiting for overseas assignments or assignments to these international health programs is to have the least possible disruption of State and local health departments. We have taken it up with the State and Territorial Health Officers' Association, and several States have worked out agreements where we deal directly with the

State. We do not go out and proselyte their personnel; but we have been able to convince the State health officers that they are a partner in our international-health activities. At least one State I know of has passed legislation which would permit amending their personnel practices to permit leaves of absence for public-health workers to go into international-health assignments and come back and retain their reemployment rights.

The second principal reason is that the Division of International Health is responsible for advising on the program content of community-health programs. The Bureau of State Services is the principal Bureau in the Public Health Service which is concerned with these community-health programs. That is why in my opening statement I referred to the overall objective of this appropriation being to assist in the more rapid translation of knowledge into active community-health programs. And I was referring, as you recall, to both our domestic and international-health programs.

TYPE OF PERSONNEL SENT TO FOREIGN MISSIONS

Mr. BUSBEY. As I recall, a great many Public Health Service commissioned officers who have been identified with State health services have been sent to various countries on the point 4 program and other international programs. Is that not a fact?

Dr. HALDEMAN. I think many of them possibly held Inactive Reserve commissions, and I assume a number of them were Reserve officers who have been on active duty.

Dr. BUSBEY. Do you have any statistics to show the number of personnel sent overseas who were Reserve officers, active or inactive, in the Public Health Service Commissioned Corps, and those that are not?

Dr. HALDEMAN. Dr. Hyde, who is in charge of our international activities, is here, and perhaps he could speak to that point.

Dr. HYDE. A considerable number of officers are abroad at the moment. There are approximately 150 officers abroad now. Approximately one-third of them are commissioned officers in the regular corps; the other two-thirds are reserve officers. They are all paid from funds transferred from FOA, or are reimbursed to us. Some of the funds are transferred and some are reimbursed.

Mr. BUSBEY. In your regular activities, do you have any task forces in foreign countries that are gathering statistics for your department or the World Health Organization or any other organization?

Dr. HYDE. No, sir. The Public Health Service does not. There are, under FOA, health missions as part of the United States operation in the Foreign Operations Administration in the countries, but their job is one of operations and advisory services and not the gathering of statistics.

Mr. BUSBEY. Then there are none of your employees gathering statistics in these various countries so far as you know?

Dr. HALDEMAN. No.

Dr. SCHEELE. I believe Dr. Hyde is correct. They do not have a specific mission doing special studies of health problems in terms of incidence of disease or deaths. On the other hand, they do, I am sure, send back with their periodic reports the reports of the national health departments in which there may be statistics indicating what their

tuberculosis rates are and what their venereal disease rates are and malaria problems are. These are very important in the overall planning of the programs in those countries.

Mr. BUSBEY. I did not have in mind the statistics that they receive from the various countries that they just transmit, but gathering statistics themselves.

Dr. SCHEELE. I don't believe we have such programs.

Dr. HYDE. I would say that there are some personnel assigned to FOA that were recruited by the National Office of Vital Statistics for the FOA which are advising the governments on the collection of statistics in their own services. But in direct answer to your question, there is no one that I can think of that is actually collecting statistics in other countries.

Mr. BUSBEY. Mr. Fogarty.

Mr. FERNANDEZ. I was going to ask, Mr. Chairman, may we have that Public Health grants-in-aid chart at the easel so we can look at it from time to time?

Mr. BUSBEY. Here in the committee room?

Mr. FERNANDEZ. Yes, sir.

Mr. BUSBEY. It is all right with me. Can you spare it for a while?

Dr. HALDEMAN. Yes.

Mr. ROCKEFELLER. Mr. Chairman, I would like to ask permission, in addition to that chart, to provide a chart which covers those same appropriations going back over the period of the last 10 years so the proper perspective can be gained on it.

Mr. BUSBEY. Fine; if you will.

Mr. FOGARTY. Let's have one that goes back to 1932.

Mr. ROCKEFELLER. Most of those programs do not go back——

Mr. FOGARTY. Whatever you have, since 1932——

Mr. ROCKEFELLER. Since 1936. Why do we not go back to when the program started?

Mr. BUSBEY. I think that would be a good idea.

Mr. FOGARTY. Yes.

Mr. FERNANDEZ. Back to zero, in other words.

BUDGET REQUEST

Mr. FOGARTY. Doctor, you are asking for $15,039,000 for 1955?

Dr. HALDEMAN. That is correct, sir.

Mr. FOGARTY. You asked for $16,315,000 in 1954?

Dr. HALDEMAN. That is correct, sir.

Mr. FOGARTY. There was appropriated $15,250,000.

Dr. HALDEMAN. That is correct, Mr. Fogarty.

Mr. ACKERMAN. Approximately $16,161,000 was obligated.

Mr. FOGARTY. You had available in 1953 $16,150,000 and you are asking for $15,039,000 for 1955. That is about $1,111,000 less than appropriated in 1953?

Dr. HALDEMAN. That is correct.

Mr. FOGARTY. Now, in the matter of positions, in 1954 you had 507 and you are asking for 489 which is a decease of 18. The largest decrease is 17 positions in technical assistance to the States.

Dr. HALDEMAN. That is correct, sir; yes. sir.

Mr. FOGARTY. Where will that reduction apply, to what type of personnel?

Dr. HALDEMAN. That reduction will apply largely to two activities: to our basic regional office staff and to our training activities, which I referred to earlier.

Mr. FOGARTY. Training activities? What are you doing in training this year?

Dr. HALDEMAN. As I indicated earlier, these activities are field training activities for State and local public-health workers which are carried out at Atlanta and Cincinnati and in our small field training centers in the country. Our basic regional office staff consists of the regional medical director, regional engineer, regional public-health nurse in our present eight regional offices which the Public Health Service is staffing.

Mr. FOGARTY. But technical assistance to States is a very important phase of this overall program, is it not?

Dr. HALDEMAN. We feel it is very important.

Mr. FOGARTY. Give me an example of just what you do in applied research.

Dr. HALDEMAN. In our study activities under this appropriation we are only working in the field of chronic diseases.

Mr. FOGARTY. Tell me something about it.

DIABETES CONTROL ACTIVITIES

Dr. HALDEMAN. Those activities are largely in the field of diabetes control. One example which I used was of the study which we have in the prevention of diabetes for which we have so much hope. We likewise have developed a method which has somewhat revolutionized mass case finding in diabetes through the development of what we call the clinitron.

Mr. FOGARTY. What is that?

Dr. HALDEMAN. The clinitron is a mechanical means of making a rapid test for the diagnosis of diabetes. Our difficulty in the past in applying diabetes detection on a mass basis has been not having a test which is economical or suited to mass application, such as the tests in diagnosis of syphilis. This has permitted a more economical case-finding operation in this particular field. In the field of diabetes control we also have given demonstrations in community application of mass-case finding. We are doing more, a little more, basic studies in terms of trying to further improve diagnostic tests. Through our studies we have also been able to get a better understanding of what the epidemiology of diabetes is. For example, in our Oxford study, which we originally did in 1947, we were able to go back after 5 or 6 years and find that a sizable percent—I believe about 15 percent—of those people with somewhat elevated blood sugar levels, but who did not have diabetes, have now developed diabetes. This indicates that we should always watch the prediabetic more.

Mr. FOGARTY. Did you say there are about 100,000 new cases of diabetes a year?

Dr. HALDEMAN. That is an estimate—that there are 100,000 new cases developing each year.

Mr. FOGARTY. Since the discovery of insulin and the use of insulin, has the death rate caused by diabetes gone down?

Dr. HALDEMAN. The death rate caused by diabetes has gone down. It still, however, accounts for approximately 25,000 deaths a year

and since it is a cause of death in the older age groups, the actual number of deaths is increasing. But the results of diabetes are not just those that die in the acute phases of diabetes. The diabetic develops arteriosclerosis and other——

Mr. FOGARTY. Earlier than usual.

Dr. HALDEMAN. That is correct, sir. As a matter of fact, for most diabetics, the ultimate cause of death is cardiovascular death.

Mr. FOGARTY. Is there not a need for these studies and statistics to determine whether people die because of diabetes or because of some cardiovascular disease or cancer or some other reason?

Dr. HALDEMAN. That is correct, sir.

VITAL STATISTICS

Mr. FOGARTY. There has been quite a bit said about vital statistics here this morning and I have heard Members of Congress from time to time say that they do not pay much attention to statistics. You are asking for $1,295,000 for vital statistics; suppose we decide to cut that program off. How would that affect the health needs of the country.

Dr. HALDEMAN. It would severely damage those individuals working in medical- and public-health research as well as those groups who are interested in the social sciences and in business. The business uses of vital statistics are, I think, something which is probably not generally recognized. I have here a Kiplinger Washington letter which illustrated that to me. I had not seen this before. Somebody called my attention to their issue dated December 28, 1953, which says, in effect, we want to tell you the latest about population in this country. It is growing fast and changing. So now for the story about births, 4 million in 1953, the highest ever, means more children in schools, more in college later on, more adults later on in an expanding nation And it goes on and says, "Business angles in babies." Many stores are now getting hep to the business meaning of births. So the national statistics are not only necessary for research and study in medicine, but also in the social sciences and in business.

Mr. FOGARTY. Last year, you asked for additional positions to dispose of a backlog. What happened to that request? What did we do? Did we give you any additional funds?

PERSONAL SERVICES LIMITATION

Dr. HALDEMAN. The House allowance for the assistance to States appropriation would have permitted an increase in our vital statistics activities. In the appropriation as finally passed there was a limitation on personal services in this appropriation.

Mr. FOGARTY. That was not put in by the House, was it?

Dr. HALDEMAN. I believe that was by the Senate.

Mr. FOGARTY. What was that limitation?

Dr. HALDEMAN. The limitation in the present fiscal year's appropriation was that personal services expenditures could not be in excess of $2,400,000.

Mr. FOGARTY. How has that limitation affected the program?

Dr. HALDEMAN. In regard to vital statistics, as an example, we are taking a real hard look at our internal operating procedures with a view of attempting to reduce some of our nonpersonal service items.

For instance, we are negotiating with the States to reduce the payment for microfilm records of vital statistics from 3 cents to 2 cents. The limitation, of course, would not permit us to shift these savings into personal-service items in order to take advantage of increased efficiency or the savings in the other areas.

Mr. FOGARTY. For what reason did the Senate put that limitation in your bill?

Dr. HALDEMAN. I do not have the exact language here but I think the intent was to force a reduction in average employment.

Mr. FOGARTY. I see. What vital statistics services are you not performing now that should be performed?

Dr. HALDEMAN. We have been forced to reduce certain phases of our annual statistics to less than annual frequency. As I mentioned earlier in the testimony, the tabulation on place of occurrence of vital events such as birth or death is no longer tabulated. We have reduced to a 50-percent sample all our tabulations on births, which introduces considerable error in small units, such as county or city. We have either postponed or dropped most of our studies, some of which I have referred to previously, and we have reduced our consultation service practically to the zero point.

Mr. FOGARTY. That is not helping the overall health needs of the country, is it?

Dr. HALDEMAN. We feel that the National Office of Vital Statistics has played a very important role.

LACK OF STATISTICS REGARDING CERTAIN DISEASES

Mr. FOGARTY. I think I asked last year; do you know, does anyone in the country know, how many people die because of contracting multiple sclerosis?

Dr. HALDEMAN. I cannot answer that question.

Mr. FOGARTY. You do not have those statistics?

Dr. HALDEMAN. We would be glad to supply what information we have for the record.

Mr. FOGARTY. Do you have any information on how many people died because of muscular dystrophy?

Dr. HALDEMAN. I cannot answer that.

Mr. FOGARTY. Cerebral palsy?

Dr. HALDEMAN. No, sir.

Dr. SCHEELE. Mr. Fogarty, may I add just a word to that? In some of those cases the people do not die from those diseases as primary cause of death, but instead they die from other diseases. So it is difficult to get exact measures.

Mr. FOGARTY. That is the same answer we have been getting for about 4 or 5 years now. I have been asking that question, as it applies to multiple sclerosis, for about 6 years.

Mr. ROCKEFELLER. If they do not die from it, it would be hard to have it show up in the record.

Mr. FOGARTY. That was not the purpose of the question, Mr. Rockefeller. The purpose of the question, originally, was to draw some attention to people who develop or contract multiple sclerosis. I found at the time 6 or 7 years ago, that the Federal Government was doing practically nothing in research on multiple sclerosis or muscular dystrophy. I think maybe $30,000 was being spent at that time on

multiple sclerosis. Since that time, there has been a national society started in both muscular dystrophy and multiple sclerosis—since those questions were asked—and the Federal Government is certainly spending more now than they did 6 years ago in that field. It was for that purpose that the original question was asked 6 years ago.

STATISTICAL PROBLEMS OF MULTIPLE CAUSES OF DEATH

Dr. HALDEMAN. May I add there, Mr. Fogarty, that that is one of the reasons why the National Office of Vital Statistics is interested in obtaining data regarding multiple causes of death.

Mr. FOGARTY. This would be an example, would it not?

Dr. HALDEMAN. This is an example of the sort of information which we cannot get now, cannot get until we are in a position to analyze multiple causes of death. For instance, even in diabetes to which I have been referring, utilizing one cause of death, even though diabetes is frequently the underlying cause, the death is reported as a cardiovascular death because of the complications of diabetes.

Mr. FOGARTY. But the cardiovascular disease was brought on because of diabetes?

Dr. HALDEMAN. Because of diabetes, yes, sir.

Mr. FOGARTY. It seems to me that it would be a difficult problem to meet.

Dr. HALDEMAN. That is correct, sir.

Mr. FOGARTY. It is one that should be met, though.

Dr. SCHEELE. Mr. Fogarty, in the case of multiple sclerosis, the Multiple Sclerosis Society has a 3-year study which is in progress and probably in a relatively short time there will be some data coming out of that study on the incidence of multiple sclerosis. The problem is complicated by many misdiagnoses, complicated by many instances of diagnoses where there are other things than multiple sclerosis but are called multiple sclerosis and they are doing a specific study and we give them all the help we can from the standpoint of data; we make it available to make it worthwhile. So we may be able in the near future to furnish you with that data so we will not be in a position of saying another year we do not know.

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. Yes.

Mr. BUSBEY. I want to say I am entirely in sympathy with the objective of the gentleman from Rhode Island to get statistics to show the relative importance of some of these diseases as causes of death, but from the discussion I am frank to admit I do not see how you can do it with all these multiple causes. Can you tell us how you could go about doing it? I wonder how you would get any statistics that would be of real value. If you could, it would be a wonderful thing.

Dr. HALDEMAN. Yes, Mr. Chairman. The principal cause of death is coded in accordance with what the attending physician says is the primary cause of death. He may list on his death certificate 2 or 3 contributory causes such as, let us say, multiple sclerosis. So you get additional information when you would code not only the cause given as the primary cause of death by a physician but also would analyze the data regarding contributing causes or other factors involved.

EFFECT OF 1954 BUDGET REDUCTION ON STATE PROGRAMS

Mr. FOGARTY. Doctor, you asked for $16,300,000 in 1954 and you got $13,250,000 which was a cut of over $3 million. How did that cut affect the State and local health programs this year? Have they made up the difference or has it not been made up, or what?

Dr. HALDEMAN. Mr. Fogarty, we have asked our regional offices to supply us with information regarding what the present status of program is in the States.

I think in terms of discussing what the effect of the cut has been, or the ability of the States to pick up the reduction, I would like to mention just briefly that in terms of the level of health services recommended as a desirable minimum, the country is considerably below that both in terms of coverage and in terms of a staff and in terms of opportunity for service. I do not mean, I am not thinking now in terms of what the respective role of the Federal, State, or local government should be in terms of supporting it. But there are some 18 million people living in areas that have no health departments. There are an additional 25 million people living in areas where they get some service from State health districts. Now, the timing of reductions last year was such that very few legislatures had a chance to pick up the slack at that time. This spring there are only 15 regularly scheduled legislative sessions which means that not too many additional States will be able to have their meeting at this time. However, in the legislatures last year, the total amount of additional money appropriated or available to State health departments last year was approximately equal to the cut in public health service grants. This is somewhat misleading, however, since in 31 States the total amount of State appropriations, together with Public Health Service grants showed a decrease. However, also, in the 22 States in which the total amount of funds available increased, the picture was not uniform. Three States—Pennsylvania, Florida, and New York—accounted for more than two-thirds of this increase. Also, in seven States, the new funds were earmarked for new programs which resulted in a curtailment of the services provided in previously established basic health services.

For instance, in Florida, a million and a half was allocated specifically for mosquito control. In Pennsylvania, over a million and a half dollars was allocated specifically for school health examinations.

Again, our information from the regional offices would indicate, as might be expected, that the venereal-disease programs in the States were the most severely affected. In approximately 45 States, program level dollarwise was reduced but also a number of other activities were curtailed in many States.

For instance, in aid to local health units which are the basic foundation of our public health system, there was a decrease in 34 States. In TB control, 28 States indicated substantial program reduction.

Mr. FOGARTY. You said in your statement that many States have reported substantial curtailment of tuberculosis case finding activities and discontinuance of one or more mobile X-ray units. Is it true that several States have reduced their tuberculosis case finding activities?

Dr. HALDEMAN. That is correct, sir. Dr. Robert Anderson, who will be talking to this committee regarding that——

Mr. FOGARTY. I will ask him, then. I notice that you did comment on that in your statement.

Dr. HALDEMAN. I think in view of our overall shortages of Public Health Service, that perhaps decrease in the training activity has been extremely noticeable; more than three-fourths of the States have made cutbacks in this program and four States have completely eliminated it.

Mr. FOGARTY. Training——

Dr. HALDEMAN. Public Health training; that is correct, sir.

Mr. ROCKEFELLER. Mr. Fogarty, if I might interject, you are getting the point of view of a man who represents the technical side of these programs. Experience shows, I think, that every technician always wants to see his program bigger, he wants to see more people in it. I do not say it is empire building; I think it is sincere belief. I think in the Federal Government the tendency is to want to take over more of these programs by the Federal Government and I think that that is why you have to have in any organization a structure where the technical point of view is given full weight and full merit and where the overall point of view is then taken into consideration and given balance.

I think that this testimony that you are developing is very interesting, but I just want to make this point that you are getting it from a technical point of view and that you are getting it from the Federal point of view and that this is a Federal, State, and local program with the principal responsibility in the hands of the State and local groups; and that that should be kept in mind.

Mr. FOGARTY. You are just stating your opinion——

Mr. ROCKEFELLER. Yes; that is all.

Mr. FOGARTY. I want the record to show that I do not agree with your statement.

Mr. ROCKEFELLER. I appreciate that, Mr. Fogarty.

Mr. FOGARTY. Let us not make any mistake about it, either.

Mr. ROCKEFELLER. But I just wanted to introduce that point of view in the discussion.

DESIRABLE EXTENT OF FEDERAL APPROPRIATION FOR PUBLIC HEALTH PROGRAMS

Mr. FOGARTY. If the Congress had followed that point of view over the past 8 or 10 years, there would not be this amount of money being appropriated today; and if the Congress agreed with your point of view, we would not be appropriating several million dollars a year for cancer, and for heart, and for mental health, either. So I am very happy that the Congress does not agree with your point of view on this program, Mr. Rockefeller, because I think there are many people living today because of the actions of the Congress in appropriating funds for research on heart, cancer, mental health, neurology and blindness, arthritis, and rheumatism that would not be if your thoughts or your policies had prevailed over the past 10 years.

Mr. ROCKEFELLER. I have to answer you on that. My comments related to these grant-in-aid programs for the services which we have been discussing here this morning, not to research. Those programs are entirely different and have nothing to do with research. Those research programs are entirely different and have nothing to do with this discussion. I think that as far as research is concerned——

Mr. FOGARTY. I think it has something to do with the discussion. I want the record to show that, too.

Mr. ROCKEFELLER. Please. But as far as research is concerned, from my point of view—and I don't mean to introduce a personal one, but you have introduced the personal angle—I think that my family has been identified with research for a great many years and long before the Federal Government came into the field. That it is something that is a tradition with us, and as a family that we believe in it very sincerely. The work of the Institute and the Foundation has been one of the great things for the health of this country. I was delighted and I know you are to see the Federal Government finally enter the field of research, and to add the support of Federal funds to the long history of important work that has been done with private funds. I just wanted to go on record on that.

Mr. BUSBEY. Would the gentleman yield?

Mr. FOGARTY. Certainly.

Mr. BUSBEY. Well, I would like to have the record show that I concur in the thoughts expressed by the Under Secretary, Mr. Rockefeller. The hearings over the past years that I have had the honor and pleasure of being a member of this committee should show conclusively that while I do not want the Federal Government to shirk its responsibilities in any of these grants-in-aid programs whatsoever——

Mr. ROCKEFELLER. Hear, hear.

Mr. BUSBEY. But after a certain point is reached, in getting these programs into satisfactory operation, where at all possible the activity should be given to the States and the Federal Government get out of them as far as practical, except for technical assistance and advisory service. I believe most of these programs were originally set up with the thought that the Federal Government would initiate them and the Federal Government would assist in coordinating the various State programs in an overall program, and then have the States handle them as far as practical.

Mr. ROCKEFELLER. Mr. Chairman, may I add one word to that, to Mr. Fogarty on that? For 21 years I have been a member of the board of a local county health organization and vice chairman for the last 18, so that I have had an opportunity to see in a very intimate way the growth of these services to the community; and to come to understand that the vitality and strength of these services grow out of the responsibility of the citizens in those communities in taking the lead in meeting their local needs. The Federal Government is tremendously helpful and I think there is a very, as you say, logical part, a logical relationship, particularly where there is financial need. The aid of the Federal Government, using these weighted formulas which have been developed by the Congress which reflect need, financial need and its relation to population in the allocation of funds, are a development which has been of tremendous importance in this country. I would like to concur with your point of view on that. This is a vitally important program and that I feel that there is a proper balance that can be reached between the relations of the Federal, State, and local governments, and that that element has to be kept in mind as we discuss these problems.

Thank you.

Mr. FOGARTY. I realize that you were not in your position as Under Secretary a year ago, Mr. Rockefeller, but I brought out here the other day the record of what your budget was a year ago with respect to the request for heart, cancer, mental health, and expressed amazement at the time that any administration would come in and make recommendations to cut so drastically those programs that they recommended a year ago to the Congress of the United States. I for one am very happy that the Congress paid no attention to your recommendations last year and increased those budgets substantially. I think the country is better off for it.

Mr. ROCKEFELLER. Again, Mr. Chairman, Mr. Fogarty, on that—you are talking of the research grants and what we have before us is these grants-in-aid for services; and when one takes the record of the grants-in-aid for services of the past 5 years, it is clear that the cuts were commensurate year by year from 1950 on—not only under this administration but under the previous administration. The Congress apparently approved and endorsed these cuts starting in 1950. It is clearly shown by the chart which was submitted yesterday.

Mr. FOGARTY. I do not think any cut was ever made as large as the 30-percent cut in 1954.

Mr. ROCKEFELLER. I think the cuts are very comparable from 1950 to 1954. If you take——

Mr. FOGARTY. I am talking about 1953 to 1954—30 percent.

Mr. ROCKEFELLER. I was talking about 1950 to 1953.

Mr. FOGARTY. In 1 year there was never that much of a reduction.

Now, as far as these services are concerned, I remember a few years ago when this mass X-ray technique was developed for TB detection, that this committee without any recommendation by the Bureau of the Budget put in a small item of $3 million and provided demonstration teams for the 48 States in the Union to get this mass X-ray technique to the States. I don't know, maybe it cost the Government $10 million but there was a service that was not recommended by the administration, but this committee went ahead and did it without any recommendations, but now the Federal Government is getting out of that field.

This committee went over the recommendations of the administration when there was the discovery that sodium fluoride would help in the prevention of cavities in children's teeth. As a result of the recommendations of this committee, we spent many millions of dollars, without the authority of the Bureau of the Budget, on demonstration teams that were sent into the various States to demonstrate how this could be applied topically to children's teeth and decrease cavities by 40 to 60 percent. Those are concrete illustrations of what I call services to the States and things everyone benefits by, whether it is you or me or any other individual; it does not make any difference whether you have a dime or $10 million.

Mr. ROCKEFELLER. Mr. Chairman, I would like to say that I think those are very interesting and important examples Mr. Fogarty has made.

There are almost unlimited opportunities of service. It is just a question of what one feels the Federal Government can do. You are the gentlemen who appropriate the money and therefore when you take on your own initiative to support a program of that kind it is a

matter of great interest to the Public Health Service and they are delighted to have the opportunity of moving into another new field.

Mr. FOGARTY. The Public Health Service in those two instances did not ask us for a dime; we did it on our own.

Mr. ROCKEFELLER. I did not mean to imply that at all. I mean if you see fit to add an appropiration of that kind because of your interest in a particular field, the Congress is the group that appropriates the money and——

Mr. FOGARTY. I do not think we should be interested in a particular field. I think we should be interested in promoting better health for all the people in this country if we can do it. If it is going to cost us a few million dollars, we ought to appropriate a few million dollars.

Mr. ROCKEFELLER. But you mentioned particular fields.

Mr. FOGARTY. Well, I am just throwing those out as 2 or 3 examples that came to my mind, that if we followed your philosophy we would not have appropriated that money.

Mr. ROCKEFELLER. That was not for research; that was for services to these States that you were talking about a few moments ago. My philosophy is that everything possible should be done for the health of this Nation, but that there is more than one group that is servicing the health of the Nation. It is not only the Federal Government. It is Federal, State, the local governments and these tremendous private organizations——

Mr. FOGARTY. That is right.

Mr. ROCKEFELLER. And private groups throughout the country. There is a place for all of them in this picture. It is a question of finding the balance and keeping the thing moving forward as a joint effort. I think that is the great strength of democracy in this country and the great strength of our Federal-State structure and local structure. I think there is a place for private initiative in the whole field of philanthropy, that they have been the pioneers in health. While we sit around this table, true, we are only considering the Federal point of view but there are other groups that are in this and we have got to gear in and mesh in to the total picture and let the Federal Government play the part which is right for it to play.

Mr. FOGARTY. I do not think we are going far enough. I think we should be doing more than we are doing. I think the field is open—that the Federal Government could do more than it is doing at the present time and accomplish results by spending money.

Mr. ROCKEFELLER. And it is the Congress that has the decision to make in that area and it is the executive branch that is here to carry out and that is the service that we all are in who are sitting here before you today.

Dr. SCHEELE. Mr. Fogarty, may I add a word?

Mr. FOGARTY. Certainly.

Dr. SCHEELE. There seems to me to be, aside from whatever difference of opinion may exist on levels of dollars, a principle involved here in terms of Federal support. Citing the two examples that you took, fluoridation, the determination made by the Congress in appropriating $1 million for the teams to go into each State was made on the basis that there was a technique which the Public Health Service should demonstrate to all of the States, but it was also said at that very time that we should, as the States picked this up or as it has been

demonstrated, not as they picked it up, gradually move out of the field and over a progressive period of time our appropriations for that purpose were reduced to zero because the demonstration had served its purpose. It seemed no longer necessary to the Congress that we continue in the field through Federal expenditure.

In the case of the X-ray, the small chest film, this was a technique that funds Congress appropriated to the Public Health Service played a major role in the development of. We pioneered in large measure the whole concept of developing a useful, small film technique for case finding of tuberculosis, an inexpensive technique. We carried on through direct operation surveys in certain major cities. We certainly covered a small part of the country as a whole with the program of the scope we had. That program, too, has been to demonstrate what can be done and for all the X-rays we have taken, States and other political subdivisions, tuberculosis associations have done vastly more than we ever did in our direct program. So it would seem that we demonstrated the technique, showed its value, and in the normal course of conversion from Federal assistance it was possible to withdraw. That the Congress has allowed to happen over the last several years.

The case-finding program in tuberculosis, however, has not gone to pot just because we are not operating in it directly.

Mr. FOGARTY. I do not think anyone said it has, but some of the States are not doing what they were doing a couple of years ago. Is that true or is it not?

Dr. SCHEELE. It is assumed that the data that Dr. Haldeman is giving you represents an adequate portrayal of what is happening. I will point out that even though as we have to look at all of our programs and ofttimes draw balances in terms of priorities, the States may still be doing many things which they could drop, if, in fact, these things have a higher priority in the States. They may be carrying on some types of activities which are now somewhat antiquated. They may be overdeveloped in some areas; and if these are still important, they can continue these fields.

For example, in the case finding——

Mr. FOGARTY. If that is so, why don't you recommend a 50-percent reduction in assistance to States generally?

Mr. ROCKEFELLER. We do not feel it would be wise.

Mr. FOGARTY. Are the States that are in better position financially to carry the burden than the Federal Government is——

Mr. ROCKEFELLER. Because we do not feel it would be wise, Mr. Fogarty, and because the support to the States is basic to the general health program and is based on an equalization formula which weighs very heavily the flow of money to those areas which are less able to carry on public health service, the basic services to their people. Therefore, it is an appraisal or an estimate of the share of the Federal Government, what assistance the Federal Government should give for that purpose.

Mr. FOGARTY. Do you believe in technical assistance to States?

Mr. ROCKEFELLER. I think technical assistance to States plays a very important part in these basic programs.

Mr. FOGARTY. To what degree?

Mr. ROCKEFELLER. You have got a question of judgment as to what level of expenditure, and opinions can differ on that. You can keep it at the same level over a period of years; you can determine whether

programs should be raised or whether States can carry more of the cost of a particular type of work and the Federal share of the program could be slightly reduced. That was our opinion this year.

SHIFT FROM CATEGORICAL TO GENERAL ASSISTANCE

Dr. SCHEELE. May I also point out, Mr. Fogarty, that while there appears to be reductions or there are reductions in the tuberculosis and venereal disease, there is an increase in general assistance and the States can apply those funds to their tuberculosis and venereal-disease problems. I would like also to point out that the States would seem to have had some warning that there was a decreasing interest in supplying funds at peak levels over the years and while they may not have faced this realistically in a few instances, nevertheless it seems to me that the trend was ample evidence to them. In venereal disease, for example, our peak year was 1943 when almost $10 million, just $2,000 less than $10 million, was appropriated. This has been coming steadily down, year by year. The same thing is true in the field of tuberculosis control where our peak year was 1947 when the big push was put on and when we were trying to stimulate the States the most. We were giving them almost $7 million. That has been coming steadily down year by year; so it seems to me that they have had warning that these were program areas that not only the Department but also the Congress itself was expecting them to pick up in increasing measures.

Mr. FOGARTY. In 1946, $11 million was appropriated for assistance to States.

Dr. SCHEELE. States, general.

Mr. FOGARTY. Assistance to States, general. Your are asking for $15 million this year.

Dr. SCHEELE. I would like to point out, too, that we have requested in past years substantial increases in the general assistance item which have not been allowed.

Mr. FOGARTY. That is right. I remember very well the first year you came up here with that proposal, when Mr. Keefe was chairman of this commitee, and I agreed with Mr. Keefe that we would rather see this money kept in tuberculosis and venereal disease and these categorical grants rather than make it all in one lump sum in assistance to States, general. We refused you in other years to raise that appropriation on the basis that we wanted the money kept in tuberculosis control and venereal disease control and these other categorical grants. I still believe the same as I did in 1946 and 1947 on that matter.

Mr. ROCKEFELLER. They did not keep up the level of appropriations in the categorical grants. They were cut much more than the general health.

Mr. FOGARTY. In the past couple of years, 2 or 3 years.

Mr. ROCKEFELLER. I think the record is 5 years.

Mr. FOGARTY. All right: 5 years, whatever it was. That is right. For a couple of years the Bureau of the Budget was responsible for that because they took off money from tuberculosis control and venereal disease control and added it on the proposed budget for general assistance when they came in for those increases in 1950 and

1951, when you asked for the largest increase, $26 million in 1951 and $24 million in 1950. As a result, the tuberculosis program and the venereal disease program got hurt because of that budget request.

Mr. ROCKEFELLER. Those cuts they recommended were allowed to stand, then?

Mr. FOGARTY. They were because there was some mixup at the time. That was the reason; it was not because of a specific determination to cut the venereal disease control program.

PROGRAMS AFFECTED BY 1954 REDUCTIONS

Where did your biggest cut come last year, Doctor; in what activity?

Dr. HALDEMAN. Our biggest cut in the 1954 estimate as compared to 1953 actual appropriation was in grants. That appropriation was reduced from $13 million in 1953 to $10,135,000 in 1954 in the grants item.

Mr. FOGARTY. What programs were affected by that cut?

Dr. HALDEMAN. The assistance to States, general, appropriation is utilized to assist States, largely, as I indicated in my opening remarks, in the basic health activities: the health officer, the nurse, communicable disease control, vital statistics, sanitation. They can be used flexibly throughout pretty well the whole of the array of public health activity.

Mr. FOGARTY. Now, in technical assistance to States, the cut this year will be made in activities at the Communicable Disease Center at Atlanta?

Dr. HALDEMAN. No, sir. It will be taken in our regional offices.

Mr. FOGARTY. Regional offices and local——

Dr. HALDEMAN. Regional offices and some in our training activities.

Mr. FOGARTY. Training activities. That would be Cincinnati and Atlanta?

Dr. HALDEMAN. That is correct.

Mr. FOGARTY. You have in your statement on page 5 a paragraph which I have already agreed with.

The status of the health of the people of the United States is a matter of paramount Federal concern. No asset which the United States possesses is of greater importance than the health and well-being of its people. This is true not only from the humanitarian point of view but also because only a population with maximum good health can economically and adequately man our industries, farms, and military services. Only through the prevention of disabling illness can the costs of medical care and hospitalization and of welfare payments to physically incapacitated individuals and their families be materially lessened. Both of these types of costs constitute a much heavier drain upon the Treasury of the United States than do the costs of preventive measures which can be instituted to prevent or minimize their effects.

I agree with that 100 percent.

To say that the Federal Government has an obligation to help provide public health protection to the people of the United States, however, is not to say that the Federal Government itself must directly provide and administer such preventive services. Through the mechanism of grants to States the Federal Government can and does discharge part of its responsibility while at the same time taking full advantage of the State and local units of Government which are close and responsive to the particular needs of the people whom they serve. As the State and Territorial Health Officers Association, in its meeting in November 1953, affirmed, "Federal grants-in-aid provide a democratic substitute for direct national action in the field of health; they prevent centralization and progressively strengthen the health program of States and localities."

The job of protecting public health is, therefore, a partnership of the Federal Government, the State governments, and the local units of government. Only when all three members of this partnership contribute their full share of resources to the total effort can this country achieve the kind of public health protection for the people to which they are entitled and which our modern scientific knowledge makes possible.

That statement which appears on pages 5 and 6 I agree with 100 percent.

HISTORY OF APPROPRIATION "ASSISTANCE TO STATES, GENERAL"

Now, how long have we been appropriating funds for "Assistance to States, general"?

Dr. HALDEMAN. The appropriation, "Assistance to States, general," is the funds that were provided under the provisions of the Social Security Act which passed in 1935. The first appropriation was made available for fiscal year 1936.

Mr. FOGARTY. In 1936 the first appropriation was made.

Dr. HALDEMAN. That is correct, sir.

Mr. FOGARTY. What was the status of the local public health units in our country at that time?

Dr. HALDEMAN. In 1935, there were 886 local health units serving 762 counties covering a population of 74,133,000. In 1953, there were 1,365 health departments serving 2,197 counties covering a population of 137,800,000.

Mr. FOGARTY. Serving how many?

Dr. HALDEMAN. Approximately 138 million.

Mr. FOGARTY. 138 million; nearly double the population that had been served in 1936.

Dr. HALDEMAN. That is correct, sir.

CHRONIC-DISEASE STUDIES

Mr. FOGARTY. What are you doing in the field of chronic-disease studies?

Dr. HALDEMAN. Our chronic-disease activities, dollarwise, are largely in the field of diabetes control. However, we do have a small unit working in hygiene of the aging and also we carry out general chronic-disease activities which are related to the analysis of such things as multiphasic screening programs and various aspects of a chronic-disease program.

TRAINING CENTERS

Mr. FOGARTY. You are operating regional training facilities now in some universities and local health agencies?

Dr. HALDEMAN. Yes, sir.

Mr. FOGARTY. Where are they located?

Dr. HALDEMAN. Our regional training centers are at Amherst, Mass.; Yonkers, N. Y.; Pittsburgh, Pa., and Denver, Colo., in connection with health departments and universities in those areas.

Mr. FOGARTY. What is the basis, what is the reason for this sort of service?

Dr. HALDEMAN. Consultative services are carried out through personnel located in headquarters as well as in the regional offices. Per-

sonnel carrying out these activities in headquarters are largely carrying out activities in more specialized fields.

For instance, moneys appropriated for this purpose under this appropriation go into our public-health nursing headquarters operation as well as our health-education headquarters operation, which provide national leadership in those activities and are available for more specialized type of consultation. That is likewise true in our chronic-disease activities.

In the field, the consultative staff supported by this appropriation is the basic regional office staff which I referred to earlier in the testimony. The regional medical director, the regional public-health nurse, the regional engineer, and the public-health representative are responsible for our overall Federal-State relations with the States in those areas. They give consultation, occasionally perform surveys upon the request of the States, and provide what I like to refer to as intellectual leadership in relation to program planning and program evaluation in relation to our overall Federal-State cooperative program.

Mr. FOGARTY. The private physician gets some advantages from this program, then, does he not?

Dr. HALDEMEN. That is correct, sir.

Mr. FOGARTY. Give us an example.

Dr. HALDEMAN. I think the advantage on the private physician is in terms of cooperative programs which are worked out on a local basis. As has been stated previously, the Public Health Service does not operate, does not provide in most instances, any direct operating program in the community. The program in the community is developed through the cooperation of the local health department, with the local medical society, in terms of a locally planned program. There may be financial assistance coming from Federal grants-in-aid, but there is also local and State money. There is, on occasion, consultative service available, but it is a locally planned program rather than a program in which personnel located either in our headquarters office or our regional office have direct relationships with the individual physicians in a community.

Mr. FOGARTY. I think that is all, Mr. Chairman.

REDUCTION IN GRANTS TO STATES

Mr. FERNANDEZ. Dr. Haldeman, the written statement you have I think is very fair and very splendid and you should be commended for it, in my opinion.

On page 2 of the statement you point out that the level of these grants, that is, grants to States for the fiscal year 1953, was $32,552,000; that reductions in the current fiscal-year appropriations brought this total figure down to $22,626,500, or a reduction of 30.4 percent below 1953; and that $20 million, or a reduction of 11.6 percent below 1954 is budgeted for the year 1955. What is the percentage of reduction from 1953 to the recommended $20 million appropriation for 1955?

Dr. HALDEMAN. That is a 37-percent reduction.

Mr. FERNANDEZ. 37 percent total, overall reduction. Again, on page 2, you say, referring to these reductions which I consider rather drastic reductions, you say, there have been serious reductions in the

services and activities of State and local health departments throughout most of the United States.

You also find, do you not, that there has been serious dissatisfaction and complaint among the people of the various States because of the conduct of our Government in this respect?

Dr. HALDEMAN. The level—for the record, I would like to say that I am speaking to the appropriation, defending the appropriation as it exists, as is presented—as I prefaced my remarks earlier in answer to Mr. Fogarty's question on what the effect of the reductions have been, I prefaced it with a remark that it was without relation to what the respective role, Federal, State, and local governments should be in this program. I think our response from the people has been not all on one side. I am more familiar with the reaction of the State health officers themselves. The State health officers, I believe, have felt that the timing of the reduction was poor in terms of the immediate future. The timing on a long-range basis involves a philosophy of the role of Federal, State, and local governments which is somewhat different than the immediate results of the reduction in terms of the legislative sessions that were held last spring.

Mr. FERNANDEZ. There has been also some serious alarm and concern as to what we are going to do this year when the situation is still the same, that the legislatures are not in session and will not be in session until next year, a good many of them, and some of them not at all. That is true, is it not?

Dr. HALDEMAN. Yes, sir.

ADJUSTMENTS BETWEEN GRANT APPROPRIATIONS

Mr. FERNANDEZ. On page 4 you point out that grants for venereal disease control have been eliminated and grants for tuberculosis control have been reduced below the 1954 level. But you point out that the amount of grants for general public health purposes contained in this appropriation have been raised above the 1954 level to a total of $11,760,000 for an increase of $1,625,000.

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. It was pointed out yesterday by Dr. Scheele, I believe, and you also point out in connection with that, the following:

> This adjustment has been made because funds under the general health grant can be used more flexibly by State health officers to support public health activities having the highest priority in their States. In some States these funds will be used in partial support of venereal disease and tuberculosis control activities if these programs are of greatest public health significance in those particular States and Federal and State funds specifically appropriated for this purpose are inadequate.

And it was pointed out yesterday by Dr. Scheele, I believe, that this was in line with the health bill which is now in process of enactment by the Congress and in line with the policy, health policy therein expressed. Do you agree with that?

Dr. HALDEMAN. Yes, sir.

Mr. FERNANDEZ. Yet, I find that although the increase in the general health service grants is $1,625,000, the decrease in venereal disease control for this year and tuberculosis control for this year is $3,200,000, which is about twice as much as the increase. Is that also in line with the health policy of the administration?

Dr. HALDEMAN. Mr. Fernandez, I feel that the question relating to the overall policy of the Department should be answered by Dr. Scheele and Mr. Rockefeller.

Dr. SCHEELE. Mr. Congressman, we feel that the amounts that have been placed before you that you are considering here for these activities will cover the most important phases of work that require Federal assistance.

You recognize that it may not make possible all the things that the experts in the field would like to do, but we feel it is an adequate amount of money to request and to have appropriated for these purposes.

INTERNATIONAL HEALTH ACTIVITIES

Mr. FERNANDEZ. I notice in your justifications on page 1–11, the estimates for international health activities for 1955 are on exactly the same level as for 1954.

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. There is no possible way of cutting the appropriation for international health activities at the same time that we are cutting the health activities and health grants and health services to the States, is there?

Dr. HALDEMAN. We feel that this amount of money is the minimum which will permit an effective operation in that rather small unit.

Mr. FERNANDEZ. As I understand the picture now, so far as venereal-disease control is concerned, that goes out of the picture this year? I mean there is no appropriation at all for the year and none contemplated for the future?

Dr. HALDEMAN. Only the grants item of the activity has been eliminated. Other activities relating to assistance to the States are maintained and will be discussed, I believe, in the appropriation immediately following this one.

Mr. FERNANDEZ. But as I understand, the appropriation for general assistance may be used in lieu of those appropriations.

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. That is all, Mr. Chairman.

Mr. BUDGE. Mr. Chairman, may I be recognized for a unanimous-consent request?

Mr. BUSBEY. Yes, sir.

ESTIMATES AND APPROPRIATIONS FOR PUBLIC HEALTH SERVICE, 1936–55

Mr. BUDGE. At this point in the record I would ask unanimous consent that the Department insert a tabulation showing the amounts of the appropriations for the Public Health Service grants-in-aid commencing with their inception in 1936, together with a tabulation of the successive appropriations for the National Institutes of Health from the inception of each institute, including the estimate of the Department for fiscal year 1955.

Mr. BUSBEY. Without objection, it is so ordered.

Mr. FOGARTY. To make it complete, I wish you would, here or at some other part of the record, put in the Truman budget last year for the Public Health Service and the Eisenhower budget and the amounts that were finally appropriated.

(The requested tabulations follow:)

Appropriations for grants to States, fiscal years 1936–55

Year	Total	Total, exclusive of hospital construction	General health	Venereal disease		Tuberculosis control	Cancer control	Mental health	Heart disease	Alaska, disease and sanitation	Hawaii, leprosy	Water pollution control	Hospital construction
				Formula	Special projects								
1955 (budget estimate)	$71,000,000	$21,000,000	$11,760,000			$2,000,000	$2,250,000	$2,325,000	$1,125,000	$540,000	$1,000,000		$50,000,000
1954	88,626,500	23,626,500	10,135,000		[1] $1,976,500	4,275,000	2,250,000	2,325,000	1,125,000	540,000	1,000,000		65,000,000
1953	110,040,000	35,040,000	13,000,000	$3,525,000	4,525,000	5,300,000	3,050,000	3,100,000	1,500,000	540,000	500,000		75,000,000
1952	120,479,300	37,979,300	13,500,000	3,525,000	5,924,300	5,800,000	3,100,000	3,100,000	1,500,000	630,000		$900,000	82,500,000
1951	125,390,100	40,390,100	13,540,500	5,500,000	5,205,600	6,350,000	3,200,000	3,200,000	1,700,000	694,000		1,000,000	[2] 85,000,000
1950	194,892,117	44,892,117	14,200,000	7,757,000	5,338,000	6,790,000	3,500,000	3,550,000	2,000,000	757,117		1,000,000	[3] 150,000,000
1949	114,680,570	39,680,570	11,214,666	8,800,000	6,046,404	6,790,000	2,500,000	3,550,000		779,500			[3] 75,000,000
1948	114,038,685	39,038,685	11,217,039	8,545,192	6,986,454	6,790,000	2,500,000	3,000,000					[3] 75,000,000
1947	37,802,990	36,002,990	14,250,000	8,764,400	6,108,590	6,880,000							[4] 1,800,000
1946	30,247,876	30,247,876	11,000,000	8,756,876	5,291,000	5,200,000							
1945	21,623,997	21,623,997	11,000,000	9,253,883		1,370,114							
1944	20,431,257	20,431,257	11,000,000	9,431,257									
1943	20,998,099	20,998,099	11,000,000	9,998,099									
1942	18,658,167	18,658,167	11,000,000	7,658,167									
1941	16,481,537	16,481,537	11,000,000	5,481,537									
1940	13,839,836	13,839,836	9,500,000	4,339,836									
1939	10,400,000	10,400,000	8,000,000	2,400,000									
1938	8,000,000	8,000,000	8,000,000										
1937	8,000,000	8,000,000	8,000,000										
1936	3,333,000	3,333,000	3,333,000										

[1] Excludes $1,523,500 grants of services and supplies to provide comparability with 1955 budget.
[2] Includes $75,000,000 contract authorization.
[3] Contract authorization.
[4] Grants for surveys and planning.

Appropriation history, National Institutes of Health, Public Health Service

Appropriation title	1938	1939	1940	1941	1942	1443	1944	1945	1946	1947
Operating expenses, National Institutes of Health:										
Obligational cash	$64,000	$64,000	$137,000	$141,000	$135,000	$743,400	$2,025,020	$2,274,000	$2,866,000	$6,254,548
Contract authority										
Salaries, expenses and grants, National Cancer Institute:										
Obligational cash	400,000	400,000	570,000	570,000	565,000	534,870	530,000	561,000	548,700	1,820,900
Liquidation cash										
Contract authority										
Mental Health Activities:										
Obligational cash										
Liquidation cash										
Contract authority										
Salaries, expenses, and grants, National Heart Institute:										
Obligational cash										
Liquidation cash										
Contract authority										
Dental health activities: Obligational cash										
Arthritis and metabolic disease activities: Obligational cash										
Microbiology activities: Obligational cash										
Neurology and blindness activities: Obligational cash										
Total:										
Obligational cash	464,000	464,000	707,000	711,000	700,000	1,278,270	2,555,020	2,835,000	3,414,700	8,075,448
Liquidation cash										
Contract authority										

Appropriation history, National Institutes of Health, Public Health Service—Continued

Appropriation title	1948	1949	1950	1951 [1]	1952	1953	1954	1955 estimate
Operating expenses, National Institutes of Health:								
Obligational cash	[2] $10,126,000	[3] $14,540,000	$12,075,000	$15,750,000	$15,756,500	$16,598,750	[4] $4,675,000	$4,675,000
Contract authority			[5] 1,925,000					
Salaries, expenses and grants, National Cancer Institute:								
Obligational cash	14,500,000	14,000,000	14,725,000	15,686,000	15,031,750	17,887,000	20,237,000	19,730,000
Liquidation cash			4,175,000	5,000,000	4,625,000			
Contract authority		8,000,000	6,000,000					
Mental Health Activities:								
Obligational cash	[3] 4,250,000	[3] 9,128,000	[3] 10,862,000	7,625,000	9,988,737	10,895,000	12,095,000	12,460,000
Liquidation cash			750,000	2,375,000	573,000			
Contract authority		2,300,000	2,150,000					
Salaries, expenses, and grants, National Heart Institute:								
Obligational cash			10,725,000	9,400,000	10,082,650	12,000,000	15,168,000	14,570,000
Liquidation cash				5,350,000				
Contract authority			5,350,000					
Dental health activities: Obligational cash			1,780,000	2,090,000	1,617,654	1,650,000	1,740,000	1,730,000
Arthritis and metabolic disease activities: Obligational cash							7,000,000	7,270,000
Microbiology activities: Obligational cash							5,738,000	5,930,000
Neurology and blindness activities: Obligational cash							4,500,000	4,763,000
Total:								
Obligational cash	28,876,000	37,668,000	50,167,000	50,551,000	52,477,291	59,030,750	71,153,000	71,128,000
Liquidation cash		0	4,925,000	12,725,000	5,198,000			
Contract authority		10,300,000	15,425,000	0	0			

[1] Gross appropriated amounts prior to rescissions.
[2] Includes funds for support of research into cardiovascular diseases.
[3] Includes funds for support of narcotic hospitals at Lexington and Fort Worth which were subsequently transferred.
[4] Excludes funds for support of functions to be carried on by the new research institutes.
[5] Contract authority which was not used.

Appropriation title	Truman budget, 1954	Administration revised estimate, 1954	Appropriated for 1954
Public Health Service:			
Control of venereal diseases	$8,325,000	$6,695,000	$5,000,000
Control of tuberculosis	7,645,000	5,725,000	6,000,000
Assistance to States, general	16,315,000	16,215,000	13,525,000
Control of communicable diseases	5,735,000	5,335,000	5,009,000
Engineering, sanitation, and industrial hygiene	3,985,000	3,850,000	3,164,700
Grants, water-pollution control	900,000		
Disease and sanitation investigation and control, Territory of Alaska	1,107,000	1,082,000	1,082,225
Grants for hospital construction	75,000,000	60,000,000	65,000,000
Grants for hospital construction (liquidation of contract authorization)	19,804,000	19,700,000	19,700,000
Salaries and expenses, hospital construction services	1,200,000	1,125,000	875,000
Hospitals and medical care	35,224,000	33,551,000	33,117,500
Foreign Quarantine Service	3,100,000	3,050,000	2,902,100
Operating expenses, National Institutes of Health	5,180,000	4,675,000	4,680,250
Salaries, expenses, and grants, National Cancer Institute	22,000,000	15,780,000	20,104,775
Mental health activities	15,500,000	9,817,000	12,039,575
Salaries, expenses, and grants, National Heart Institute	16,500,000	11,040,000	15,160,750
Dental health activities	2,700,000	1,740,000	1,740,875
Arthritis and metabolic disease activities	8,450,000	4,976,000	6,985,150
Microbiology activities	7,000,000	5,738,000	5,721,300
Neurology and blindness activities	7,670,000	2,574,000	4,501,750
Gorgas Memorial Laboratory			
Construction of research facilities			
Construction of research facilities (liquidation of contract authorization)	3,000,000	2,500,000	2,500,000
Retired pay of commissioned officers	1,215,000	1,197,000	1,197,000
Salaries and expenses	3,138,000	3,100,000	2,815,000
Buildings and facilities, Cincinnati, Ohio			
Service and supply fund	200,000	200,000	200,000
Total, Public Health Service	270,893,000	219,665,000	233,030,950

Mr. BUSBEY. Now, just 1 or 2 observations before we adjourn.

In regard to the matter of Congress acting when the State legislatures are not in session, that is a question that has been brought up not only in committee but on the floor of the House in debate year after year as long as I can remember, and we will always have that problem with us. It is true that a great many States are not in session this year and therefore they are not in a position to take any action. On the other hand, if we take that into consideration and let it go over to the next fiscal year, most of the State legislatures will be adjourned before any appropriation is passed by the Congress. So I do not see any particular end to that question.

I would like to say for the record that I think the Under Secretary, Mr. Nelson Rockefeller's attitude and interest in these various health programs is evidenced to a far greater degree than any words can say, by the fact that he is down here working as hard as any Member of the Congress or any member of the executive branch of the Government, putting in as many hours from month to month as anybody in Government, when certainly he does not have to do it. I think it is an expression of his interest in these programs that is far beyond description. As the old saying goes, "Actions speak louder than words," and as Grover Cleveland was once credited with saying, "We are confronted with the fact and not a theory," and what I have said is a fact and the record would show it.

Certainly, no one can deny that he could spend his time at a beach in Florida and doing a lot of other things that might be considered pleasanter and more relaxing than working night and day on these worthwhile and humanitarian programs in the Department of Health, Education, and Welfare. I wanted the record to show, Mr.

Rockefeller, that I as one individual appreciate the tremendous sacrifice that you are making for your country.

And regarding the responsibility of the States, I have, ever since I first campaigned for Congress, dedicated myself to a program of trying to reverse the centralization of Government that has been going on for a great many years. I think that evaluating these programs with a view to determining how the burden can be shifted from the Federal Government to the States is a very commendable one and I personally endorse it 100 percent.

Are there any further questions?

Mr. FOGARTY. I am glad that the views of the chairman of this committee did not prevail in the Congress of the United States over the past 20 years. If they had, and this help had not been given to the States, we would be in a pretty sorry mess as far as the health needs of our country are concerned.

Mr. BUSBEY. If the views of the chairman had prevailed for the past 20 years, we would not have had this great centralization and bureaucracy built up here in Washington in the Federal Government. I have just enough faith in the States to believe they can take care of most of their needs themselves.

Any further questions? The committee stands adjourned.

THURSDAY, APRIL 1, 1954.

CONTROL OF VENEREAL DISEASES

WITNESSES

DR. JAMES R. SHAFER, CHIEF, DIVISION OF VENEREAL DISEASE
STEPHEN ACKERMAN, FINANCIAL MANAGEMENT OFFICER, BUREAU OF STATE SERVICES
DR. LEONARD A. SCHEELE, SURGEON GENERAL
ROY L. HARLOW, CHIEF FINANCE OFFICER

SALARIES AND EXPENSES

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$9,850,000	$5,000,000	$2,300,000
Transferred to "Assistance to States, general, Public Health Service," pursuant to Public Law 452	−50,000		
Adjusted appropriation or estimate	9,800,000	5,000,000	2,300,000
Unobligated balance, estimated savings	−48,919		
Obligations incurred	9,751,081	5,000,000	2,300,000
Comparative transfer to—			
"Salaries and expenses, Public Health Service"	−73,251		
"Salaries and expenses, Office of the Secretary of Health, Education, and Welfare"	−33,713		
Total obligations	9,644,117	5,000,000	2,300,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants to States for general venereal disease control, case finding, and treatment	$6,061,881	$1,976,500	
2. Direct operations:			
(a) Clinical and laboratory research	541,494	525,000	$510,000
(b) Technical assistance to States	2,797,850	2,268,500	1,590,000
(c) Administration	242,892	230,000	200,000
Total obligations	9,644,117	5,000,000	2,300,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	661	492	377
Full-time equivalent of all other positions	13	4	3
Average number of all employees	614	465	353
Average salaries and grades:			
General schedule grades:			
Average salary	$4,782	$5,095	$5,087
Average grade	GS-7.3	GS-7.9	GS-7.9
Crafts, protective, and custodial grades:			
Average salary	$3,051	$3,070	$2,870
Average grade	CPC-3.9	CPC-3.7	CPC-3.3
Ungraded positions: Average salary	$3,247	$3,359	
01 Personal services:			
Permanent positions	$2,826,484	$2,390,800	$1,904,800
Other positions	59,581	18,100	11,100
Regular pay in excess of 52-week base	9,188	7,100	5,600
Payment above basic rates	21,574	10,000	1,500
Total personal services	2,916,827	2,426,000	1,923,000
02 Travel	224,694	189,000	147,500
03 Transportation of things	55,934	42,900	30,900
04 Communication services	17,655	21,500	16,500
05 Rents and utility services	18,950	14,000	9,500
06 Printing and reproduction	47,700	38,600	38,600
07 Other contractual services	85,258	62,800	48,800
08 Supplies and materials	244,876	197,100	64,100
09 Equipment	27,029	19,000	13,700
11 Grants, subsidies, and contributions	5,992,454	1,976,500	
13 Refunds, awards, and indemnities	118		
15 Taxes and assessments	14,992	12,600	7,400
Subtotal	9,646,487	5,000,000	2,300,000
Deduct charges for quarters and subsistence	2,370		
Total obligations	9,644,117	5,000,000	2,300,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$513,376	$360,581	$300,581
Obligations incurred during the year	9,751,081	5,000,000	2,300,000
	10,264,457	5,360,581	2,600,581
Deduct:			
Adjustment in obligations of prior years	19,010		
Obligated balance carried to certified claims account	1,332		
Unliquidated obligations, end of year	360,581	300,581	240,581
Total expenditures	9,913,534	5,060,000	2,360,000
Expenditures are distributed as follows:			
Out of current authorizations	9,418,511	4,720,000	2,080,000
Out of prior authorizations	495,023	340,000	280,000

Mr. BUSBEY. The committee will come to order.

We have before us for consideration this morning the appropriation request for fiscal year 1955 for "Control of venereal diseases."

General Statement

Dr. Shafer, we will be pleased to hear your statement.

Dr. Shafer. Mr. Chairman and members of the committee, congressional action in 1938 inaugurated a program of grants-in-aid to States for venereal disease control. This action had been preceded by a decade of effort directed toward determining the extent and distribution of the venereal disease problem and developing diagnostic and treatment tools. From 1938 to 1949, the grant-in-aid program facilitated the development, testing, and adaptation of venereal disease control techniques and skills in the various States and communities throughout the Nation. From 1949 until 1953, an increasing proportion of grants were allocated to States on the basis of specific projects in specific problem areas. In 1954 all formula grants-in-aid are eliminated and only special project grants are being made to meet the venereal disease problems in the 24 States that have not brought syphilis under control and in other selected high prevalence areas in States that have reached control. In the fiscal year 1955 estimate, all special project grant funds are also eliminated.

Although significant reductions have been made in the incidence of venereal diseases since the postwar years of 1945–47, the rate of decline of this incidence has slowed up markedly in recent months. There are still occurring at the present time over 90,000 cases of syphilis and 1 million cases of gonorrhea. Venereal diseases still comprise approximately one-half of the communicable diseases among the adult population. There is a current reservoir of about 2 million people with syphilis who need treatment and who, without treatment, are candidates for disability and premature death.

The 1955 estimate, however, provides for field operations in only the most critical venereal disease problem areas, primarily around military camps, defense industries, and recreational areas. The problems in these areas are largely the result of defense activities which are the direct responsibility of the Federal Government. The elimination of the special grant funds in fiscal year 1955 will reduce epidemiologic services to critical military, defense industrial, and defense recreational areas from 255 areas served during the current fiscal year to 107 of these areas.

Pending the development of immunizing agents and their national application to eliminate the continuous hazard of venereal-disease epidemics, the necessity remains for continuous study and improvement in the fields of diagnosis and treatment, for intensive case finding, and for training. The lack of immunizing agents makes it essential to continue the intensive effort to inform oncoming generations of the nature of venereal diseases and their prevention and cure.

Maintenance of adequate laboratory services will continue as one of the prime requisites in successful detection of syphilis throughout the Nation. Provision of such service by all State and local health departments requires the maintenance of uniformly high standards of test performance, use of tests with known high efficiency, proper training of laboratory personnel, and competent evaluation and interpretation of serologic results. Such services will be provided for the Nation by the Venereal Disease Division.

Research will be continued in the attempt to establish an immunizing agent against syphilis. Successful developments in this attempt

would mean an extensive forward step in the control of venereal disease, in terms both of local programs throughout the Nation and also in protecting civilian and military personnel serving outside the borders of the United States.

Further research will be devoted to determining the cause, diagnosis, treatment, and epidemiology of nonspecific urethritis. Chancroid, lymphogranuloma venerum, and granuloma inguinale also present problems of increasing importance with the expansion in foreign travel, and will receive all possible attention.

In attacking the reservoir of late syphilis in the United States, one of the problems has been to eliminate those cases with biological false positive serologic tests. Present developments in this field, though encouraging, have not yet provided a simple, economical method of eliminating such false positives, nor a procedure which is readily reproducible in all laboratories. Research will be continued in this field to determine whether certain new modes of inquiry may not open the door to an increased specificity in laboratory testing for syphilis. This avenue of research may also lead to a broadening of the field of use of serologic analysis to uncover other disease entities.

The proposed budget permits continuation of necessary evaluation service to provide (1) a critical analysis of control problems; (2) assistance in a continuing evaluation of the changing problem to determine the most critical areas in which epidemologic service must be rendered under the 1955 budget; and (3) continued evaluation of all therapeutic agents.

The budget will also provide for consultative and epidemiologic services to States to assist in locating and controlling venereal disease problems which are imposed by or are a threat to national interests; especially in situations where there is a problem of transmission of venereal disease infections across State and National boundaries which is beyond the scope and resources of the jurisdictions involved. It will assist in the development of procedures for the effective control of emergency problems, the maintenance of adequate epidemiologic intelligence between health jurisdictions, the intensive pursuit of case-finding programs in pinpointed areas of high prevalence and limited application of new techniques in the control of gonorrhea.

To the extent possible, it will attempt to develop, in cooperation with other agencies and health authorities, protective devices against the threat of venereal disease brought to the United States by migrant agricultural workers, merchant sailors, travelers, and military personnel. The hazard of venereal disease from this source is particularly acute on our Southwestern border where hundreds of thousands of workers enter the United States illegally each year.

Finally, the budget provides for general administration of the program and coordination of its activities together with the provision of information on technical, research, and control developments to State and local health departments, to physicians, to professional and educational agencies and institutions, and to the general public.

BUDGET REQUEST

Mr. BUSBEY. Dr. Shafer, your request for fiscal year 1955 is for $2.3 million, which is a reduction of $2.7 million from the fiscal year 1954 appropriations?

Dr. SHAFER. That is correct, sir.

Mr. BUSBEY. The budget schedules and the justifications indicate that no grants will be made to States, but you are asking for a continuation of appropriation language on authorized grants. Why is that?

Dr. SHAFER. Well, we feel that inevitably there will be an inability of some of the States to utilize completely all of the funds that have been appropriated for this current year, and we would hope to use any unexpended funds to liquidate the programs that they have started during fiscal year 1954 with those unexpended funds.

Mr. BUSBEY. Do you have any estimate of approximately how much the unexpended funds might amount to?

Dr. SHAFER. Well, at the present time our funds for grants to the States during fiscal year 1954 are completely allocated so that the only unexpended funds that we can visualize are those that are now earmarked for expenditure, but inevitably, will not be spent.

It should be a very small amount of funds.

RAPID TREATMENT CENTERS

Mr. BUSBEY. Your budget includes the following requested appropriation language:

> Including the operation and maintenance of centers for the diagnosis and treatment of persons afflicted with venereal diseases. * * *

Is the Public Health Service still operating the so-called rapid treatment centers for veneral diseases?

Dr. SHAFER. No, sir; our rapid treatment centers—which were inpatient hospitals—all of our hospitals of that sort have been closed out as of July 1, 1953.

We are now assisting States and cities in the operation of prevention and control centers, which are simply outpatient clinics, located in about 42 of the major cities around the country where we are attempting to do the same job that we formerly did with our rapid treatment centers.

Mr. BUSBEY. Under those circumstances, do you think this language is necessary in the bill?

Dr. SHAFER. Well, we would hope that as we liquidate our program during the coming year, that some of these funds could be used in the liquidation of our prevention and control-center program.

In other words, we would hope that prevention and control-center operations would not have to be stopped now, or in the very near future, but would be permitted to continue through this fiscal year.

TECHNICAL ASSISTANCE TO THE STATES

Mr. BUSBEY. In your justifications, under the heading of "Technical assistance to the States," you have an item, "(1) 150 venereal-disease investigators will be assigned to military camps, defense, and industrial and recreational areas."

At first blush that looks like you are running an operational program instead of giving technical assistance; is that correct?

Dr. SHAFER. Well, this is a part of our technical assistance; it is under the technical-assistance aid to the States.

We feel that it is vitally important that the Public Health Service, through its venereal-disease division, be able to meet the responsibility that we see in the problem around these military installations.

We feel that the very establishment of a military installation makes for additional venereal-disease problems or creates completely new ones in areas where venereal diseases have been under control. Therefore, we feel that it is a Federal responsibility to give assistance in such areas. Logically, the venereal-disease problem of a military installation is reflected into the civilian population that surrounds the camp, and of course many of those camp followers do come into a military area after a camp is established and do create additional venereal-disease problems.

Therefore, we feel that this is a form of technical assistance that is highly justifiable.

Mr. BUSBEY. I do not think this is any new problem which has developed in the last few years; is it?

Dr. SHAFER. That is true, sir. It is a problem that has always been with us.

Mr. BUSBEY. Just what are these investigators, and what are they doing? Perhaps that is the wrong terminology for the men that are working on this, but from your justification I have a little difficulty reconciling investigators and technical assistance.

Dr. SHAFER. Perhaps I could preface my explanation by saying that the various departments in the Department of Defense—the Army, Navy, and Air Force—have for years attempted to train their own venereal disease interviewers and investigators, and primarily the interviewers.

After training we found that frequently they were moved on to other assignments, according to the needs of the service.

Contact interviewing is a highly specialized job that requires training and years of experience.

We feel that it was much more satisfactory, and certainly this has been confirmed by the Army, Navy, and Air Force, to have Public Health Service or State or local health department interviewers, who could work either full time or part time at these military installations.

They would interview the military personnel who developed venereal diseases for their contacts, and then in many cases were able to go out into the surrounding civilian population and actually make the contact investigations. In other words, they followed their information right down to the infected contact, and could bring that contact into the civilian health department or send him to a private physician for diagnosis and treatment.

We found that it was much more satisfactory than having military personnel interview the patient, and then have to transmit that information to the nearby health department where a second person tried to find the contact.

Mr. BUSBEY. The military personnel do none of the interviewing?

Dr. SHAFER. Well, it is not a uniform situation, Mr. Chairman. In many areas we do find that trained Army or Navy or Air Force personnel do the interviewing, and they in turn send a report forward to the civilian health department, where civilian investigators take action.

However, as I said previously in many areas the change in military personnel takes place so frequently that they have been unable to maintain any continuity of interviewing personnel, and we have supplied a serious gap in their VD program, by giving them one of these contact interviewers.

REDUCTION IN PERSONNEL IN GRADES ABOVE $8,000 PER ANNUM

Mr. BUSBEY. I note that there has been about a 50-percent decrease in personnel in this program from fiscal year 1952 to the budget for fiscal year 1955. I think there were 735 permanent positions in 1952, and the 1955 budget calls for 377, but there has been only a decrease of 12.5 percent in the positions paying over $8,000, and there has been no decrease at all in these higher paying jobs in Washington. According to my table, here in Washington there were 15 jobs at $8,000 or more in 1952, and there are still 15 in fiscal year 1955.

Why has practically all of the reduction been made in the lower grades?

Dr. SHAFER. One reason that occurs to me immediately, Mr. Chairman, is that in 1952 we were operating a rather sizable number of the rapid treatment centers, and, naturally, we had a considerable number of routine hospital personnel such as nurses, attendants, janitors, maintenance personnel, clerks, and so on, and as hospitals were closed out, naturally, those were the people who were removed from employment.

Mr. BUSBEY. In the field, I note that there has only been a drop of five positions paying $8,000 or more from 1952 to 1955, a decrease from 40 positions to 35 positions in the upper brackets.

Dr. SHAFER. Well, I am going on to say that our higher-paid medical personnel and people with many years of experience and training in our program have been shifted to our prevention and control centers, where they are performing the same job that they did at the rapid treatment centers.

Mr. BUSBEY. Who performed those jobs in the States before these men were transferred?

Dr. SHAFER. We had our physicians doing the medical work and, of course, they have been continued in the prevention and control centers.

The interviewing was done, again, by our trained interviewers, and our big problem has been that as we would close a rapid treatment center and shift that activity to an outpatient clinic type operation, in many cases we have had to set up two or three prevention and control centers to do the job that was formerly done by the rapid treatment center.

For example, in one State, the closing of a single rapid treatment center caused the necessity for more interviewers. We have been forced to hire as many, and in some cases more, of our highly trained personnel in certain areas, and this has prevented reduction of the personnel that we would have in those higher categories.

ADEQUACY OF REQUEST

Mr. BUSBEY. I think anyone would appreciate that the more money you have to work with, the more personnel you can have, and certainly it follows that a more thorough job should be done, but has this pro-

gram progressed sufficiently so that with the appropriation requested for fiscal year 1955 you can do what might be termed a satisfactory or effective job? By that, I do not mean a 100-percent perfect job, because you will never get a 100-percent perfect job regardless of how much money the program has, but I think the committee is interested in knowing if the program is going to be wrecked by the cut in the fiscal year 1955 budget.

Dr. SHAFER. Well, you will note from our reports on syphilis and gonorrhea that the number of cases brought to treatment has decreased in fiscal year 1953, as compared with previous fiscal years.

We feel that the State and local health departments have shown an awareness of the problem and are moving into the situation to continue their programs at an effective level.

Of course, I am what you might call a medical technician in this field, and I firmly believe that every dollar invested in the program will be a solid investment, and that there will be returns from it, but I realize at the same time that our budget must be worked out according to the budgetary requirements of our Service and Department.

COMPARISON OF 1954 AND 1955 STAFFING PATTERN

Mr. BUSBEY. Now, on this matter of personnel, I notice that in Washington the number of positions dropped from 112 in fiscal year 1954 to 88 in fiscal year 1955. However, again, there has been no drop in the grades of $8,000 or over, and certainly the matter of having a rapid treatment center closed in that period here in Washington does not enter the picture.

I feel quite concerned not only about this program, but many of the programs of the Government, that there is not a greater percentage of the higher paying jobs eliminated or consolidated along with this reduction in force that has been going on during the past year. It appears that in nearly every division of the Government the only ones that get "riffed" are those in the lower brackets.

Dr. SHAFER. I do have a tabulation here of the vacancies that will be brought into the picture in the coming year. I see at least 14 positions at the level of grade 11, or above, that will be removed.

Mr. BUSBEY. In looking at page 327 of the budget supplement, I find 2 positions in fiscal year 1954 for $20,400, and you have the same for fiscal year 1955; there is 1 position for $8,960, and you have the same for fiscal year 1955; there are 6 positions for a total of $53,760 and 6 positions for fiscal year 1955 for the same amount.

Then down in here in another grouping is another position for $12,566 for 1954, and the same position for fiscal year 1955; you have 3 positions for a total of $32,656 for fiscal year 1954, and the same amount for fiscal year 1955; 2 positions for a total amount of $16,782, and the same amount for fiscal year 1955.

There is not a single top position dropped but in total there is a reduction from 112 positions to 88 positions.

Dr. SHAFER. Well, we feel very strongly that we must continue our top-flight trained personnel who are experienced in venereal-disease control. We are going through a rather serious readjustment program.

Mr. BUSBEY. I have no quarrel with that, but certainly with those reductions in the program, you do not need so much supervision and

as many top administrative positions as you have had with a much larger program.

It is the same old story. We increase these top-level jobs as we expand the program, but we never seem to be able to eliminate these top-level jobs when the program is contracted.

Dr. SCHEELE. Mr. Chairman, in many of these programs, this one in particular, these people are not in a supervisory position. Even these investigators supervise themselves. They do not have a subordinate staff.

I think the basic answer, so far as most Public Health Service programs are concerned, and I would not defend that we have the right ratio in each of our programs, but in general we are dealing with health problems and we require professional workers.

Many of these people are working with their own hands. The man at the prevention and treatment center would only have 1 stenographer or he might have 1 nurse, but there might be 3 professional persons actually treating and examining patients. So, you do not have the normal working relationship here as you have in a machine operation.

Mr. BUSBEY. However, your patient load should go down in this program?

Dr. SCHEELE. Yes, sir; but you cannot use stenographers or clerks to examine or treat patients, or even, for that matter, go out and to investigate. We are dealing with a requirement in which we require professional people. I think that is the reason that our programs are biased up toward the professional grades.

Mr. BUSBEY. I think they should, rightfully, be biased toward the professional grades. I concur in that 100 percent, but it certainly stands to reason that with a greatly reduced program a few of these people in the top positions could be eliminated without injuring the program one iota.

Of course, so far as the investigators are concerned, I assume they are not in the $8,000 and above grades, which I have been speaking of.

Mr. HARLOW. Mr. Chairman, apropos of Dr. Scheele's remark, I was looking at the situation in the Public Health Service as a whole, and in our 1955 budget 88.6 percent of the positions are in grades 9 and below.

Whether that is an extravagant ratio I do not know, but it seems to me that it shows that certainly we are not overloaded above grade 9.

Mr. BUSBEY. Does that include the commissioned corps?

Mr. HARLOW. I do not have the percentage on the commissioned corps, no, sir; but it does compare very favorably with our situation in 1948, when we had 91.5 percent in grade 9 and below, and had 1,000 less people.

Mr. BUSBEY. Would you supply a comparable figure for the commissioned corps, for the record, please?

Mr. HARLOW. Did you not develop that a day or two ago?

Mr. BUSBEY. I asked for certain information about the commissioned corps, but I did not develop that particular percentage figure. As I remember, we dealt with the overall picture.

Mr. HARLOW. Yes, sir; we can do that.

(The matter referred to is as follows:)

All commissioned medical and dental officers, and all other officers with 6 or more years of service, receive pay and allowances higher than grade 9 classified employees. Of the 2,371 commissioned officers (excluding interns) on duty February 28, 1954, 128, or 5.3 percent, were receiving pay and allowances equivalent to or less than grade 9 classified employees.

Mr. BUSBEY. Mr. Budge, any questions?

Mr. BUDGE. No questions.

Mr. BUSBEY. Mr. Fogarty?

HISTORY OF RECENT BUDGET SUBMISSIONS

Mr. FOGARTY. Dr. Shafer, what was the Truman budget for this program a year ago?

Dr. SHAFER. The Truman budget of a year ago was, I believe, $8,325,000.

Mr. FOGARTY. How much?

Dr. SHAFER. $8,325,000.

Mr. FOGARTY. What was the Eisenhower budget?

Dr. SHAFER. $6,695,000.

Mr. FOGARTY. What did this committee allow?

Dr. SHAFER. This committee allowed $5 million last year, sir.

Mr. FOGARTY. And, the Senate allowed that same figure?

Dr. SHAFER. That is correct, sir.

Mr. FOGARTY. Which was $3,325,000 less than the Truman budget request?

Dr. SHAFER. That is true, sir.

Mr. FOGARTY. Now you are taking another cut of $2.7 million, which is about a $6 million cut that you are taking from the budget of $8,325,000 recommended by President Truman a year ago.

Dr. SHAFER. That is correct.

Mr. FOGARTY. What did you request of the Bureau of the Budget this year?

Dr. SHAFER. Our request was $2.3 million, which is the same as their allowance.

Mr. FOGARTY. Did you have an A budget and B budget?

Dr. SHAFER. We had no additional budget on this appropriation.

Mr. FOGARTY. You do not have an A and B budget this year?

Mr. ACKERMAN. Not this year.

Mr. FOGARTY. You have had them prior to this year?

Mr. ACKERMAN. Yes, sir.

CHANGES IN VENEREAL-DISEASE PROBLEM

Mr. FOGARTY. What significant changes, if any, in the venereal-disease problem have taken place since this budget was submitted?

Dr. SHAFER. Since this budget was prepared, we have been able to tabulate our figures for fiscal year 1953, and as you will note the syphilis morbidity decreased from 176,000 cases to 162,000 cases.

Mr. FOGARTY. What page is that on?

Dr. SHAFER. That is on page 2 of the budget, sir. The reports on the incidence of gonorrhea remained essentially the same. There are scattered areas throughout the country that show some very slight increases for the fiscal year 1953, but the overall trend has been steadily downward for the last several years.

Mr. FOGARTY. 1952 and 1953 are about the same, so far as gonorrhea is concerned?

Dr. SHAFER. That is correct, sir.

Mr. FOGARTY. And, there is not much of a difference in regard to syphilis?

Dr. SHAFER. Well, it is true that the decline in morbidity has slowed up considerably, or has slowed since the previous year.

In syphilis, you will note that there was a decrease of some 32,000 cases between 1951 and 1952, whereas in 1953 and 1952 there was only a decrease of 14,000 cases.

The decrease from 1950 to 1951 was some 30,000 cases. In the previous year it was some 58,000 cases.

Mr. FOGARTY. Some Members of Congress have been led to believe that since the discovery of penicillin and other drugs that venereal disease is no longer a problem in this country, and it appears to me from the way this budget has gone down in the last few years that more than Members of Congress think it is not any problem.

However, according to this, it is still a problem.

Dr. SHAFER. Well, of course, we in the field of venereal-disease control feel that patients must be brought to treatment before the penicillin can do them any good, and it does require case finding, and it does require education of the public so that they will recognize their symptoms, and go to a physician for treatment.

We would hope that the State and local health departments will continue their laboratories so that blood testing will be done, and that they will continue their staff of investigators and physicians so that the program will carry on at much the same level as it has in the past.

Mr. FOGARTY. Syphilis and gonorrhea are contagious diseases, are they not?

Dr. SHAFER. That is correct, sir.

INCIDENCE OF VENEREAL DISEASE

Mr. FOGARTY. I notice in your statement you say that it is still occurring at the present time at the rate of over 90,000 cases of syphilis and 1 million cases of gonorrhea. Does that mean yearly?

Dr. SHAFER. That is the annual incidence of syphilis and gonorrhea, as we estimate it.

I might say that among the infectious communicable diseases, and I am correct, I believe, in saying this, measles is the one that occurs most frequently, gonorrhea is second, and syphilis is third.

Mr. FOGARTY. You further state that venereal diseases still comprise about one-half of all communicable diseases in the adult population?

Dr. SHAFER. That is correct.

Mr. FOGARTY. Even with the morbidity rate going down, and with the discovery of these new drugs, it still accounts for about one-half of the communicable diseases now?

Dr. SHAFER. That is correct.

CURRENT CASES IN NEED OF TREATMENT

Mr. FOGARTY. I also notice that you say you have a current reservoir of about 2 million people with syphilis who need treatment.

What happens if they do not get treatment?

Dr. SHAFER. Well, approximately 12 percent of those people, according to our best data, will wind up with complete disability because of their syphilis, and we estimate that almost 4 percent of these 2 million will go into mental institutions because of syphilis. We have data to show that the average cost per year of hospitalization is about $830, and they have an average life expectancy of 10 years after they enter these institutions. So, if this reservoir of 2 million people were not treated at all, the hospitalization of those going into mental institutes would cost some $257 million.

FALSE POSITIVE SEROLOGIC TESTS

Mr. FOGARTY. You further stated:

> In attacking the reservoir of late syphilis in the United States, one of the problems has been to eliminate those cases with biological false positive serologic tests.

What is your experience with these tests?

Dr. SHAFER. Well, we have come to a stage in our syphilis control program where the number of people who have biological false positive serologic tests is increasing.

In former years, we felt that meant that we had simply poor laboratory techniques, although we knew that there were many conditions which would give a false positive test for evaluation, and those are such conditions as malaria, leprosy, and so forth.

Occasionally, after a person has had a vaccination for smallpox, for a short period of time they will show a positive blood test for syphilis. However, in recent years we have developed serology to the point where we realize that these biological false positive tests for syphilis may indicate another group of chronic diseases which are a rather serious problem for us in the future, and it comes under the category of what we call the collagen disease. It is any disease involving the connective tissue. I think the various types of arthritis are the best examples of that.

In the serological test for syphilis, we may have an early case-finding mechanism for some of these so-called chronic diseases which are a serious problem at the present time.

We have also assisted in the development of the treponema immobilization tests.

Mr. FOGARTY. What are those tests?

Dr. SHAFER. They are rather new, very complex, and, unfortunately, expensive tests, which are highly specific for syphilis, and if these tests are perfected and the cost of testing can be reduced to a practical level we feel we can eliminate this problem of biological false positive tests.

MEXICAN MIGRANT WORKERS

Mr. FOGARTY. You say in the last page of your statement that the hazard of venereal disease from this source—and I presume from migrant agricultural workers, or wetbacks—is particularly acute on our southwestern border where hundreds of thousands of workers enter the United States illegally each year.

What has been your experience with these agricultural workers that come across, whether they come across legally or illegally?

Dr. SHAFER. Well, we have been able to blood-test a rather large sample of some 12,000 of these workers.

Mr. FOGARTY. You are talking about the legal entrants now, are you not?

Dr. SHAFER. Yes, sir.

Mr. FOGARTY. Do you know anything about the incidence of the disease among the wetbacks?

Dr. SHAFER. Only as they are blood-tested at some of these jails in the Southwest. We know that the legal entrants have run between 13 percent positive, and 16 percent positive, which is not a much smaller number than wetbacks.

Mr. FOGARTY. That is, about 14 percent of these legal workers from Mexico have syphilis?

Dr. SHAFER. That is correct, sir; they have shown positive blood tests for syphilis.

Among the illegal entrants based on the few which have been blood-tested, they have consistently run between 15 and 20 percent positive.

Mr. FOGARTY. They have run a little higher than the legal entrants?

Dr. SHAFER. That is true.

However, we feel that there is an explanation for that in that most of the legal entrants have come from deep in Mexico—from, you might says, the heart of Mexico. They are truly rural workers, whereas most of the wetbacks come from the border areas, where they have a more serious venereal-disease problem.

Mr. FOGARTY. All of these workers are screened, are they not, when they come across the border?

Dr. SHAFER. The legal entrants are screened as they cross the border.

Mr. FOGARTY. What do you do with them when you find them to be positive?

Dr. SHAFER. Those that show any signs or symptoms of either syphilis or gonorrhea or of a venereal disease are treated at the border, and it is my impression that they are returned to Mexico, though I am not absolutely certain on that point.

Even though they are treated, I do not believe they are brought on into the United States, but I may be in error on that particular point.

Mr. FOGARTY. Will you ascertain the answer to that and place it in the record?

Dr. SHAFER. Surely.

(The matter referred to is as follows:)

Mexican contract laborers are given a general medical examination at the recruiting centers in Mexico and further inspection as they enter the United States through the border stations. No blood tests are routinely performed.

At the border station treatment is given to those who have evidence of syphilis or gonorrhea and a medical determination is made whether it is necessary to return them to Mexico or whether they may be allowed to enter the United States.

Mr. FOGARTY. You mentioned a figure of 12 to 16 percent, which had syphilis.

What about the other venereal diseases, such as gonorrhea?

Dr. SHAFER. We have found comparatively small numbers with gonorrhea. There have been no cases of chancroid or granuloma inguinale or lympho-granuloma venereum reported in these workers, according to my knowledge.

BWI AND PUERTO RICAN MIGRANT WORKERS

There was a group of laborers that came in through the Southeastern part of our country recently, which was found to have a rather high incidence of gonorrhea, but that situation has been adequately handled.

Mr. FOGARTY. Where did they come from?

Did they come from the West Indies?

Dr. SHAFER. They came from the Bahamas, as I recall, sir.

Mr. FOGARTY. What about the percentage of those that have syphilis?

Dr. SHAFER. A few of those workers did have syphilis, but, again, they were treated by the local health department, as they entered this country.

Mr. FOGARTY. What is the situation in regard to the Puerto Ricans which are imported into the northeastern section of the country?

Do you know anything about that?

Dr. SHAFER. The information that I have is that as Puerto Rican workers leave Puerto Rico, they are given a complete physical examination, including a blood test, and X-rays, and the same is true of the Jamaicans that come into this country.

Mr. FOGARTY. They, no doubt, would not be allowed to come in if they had some disease?

Dr. SHAFER. They are excluded if found to be positive for syphilis.

EFFECT OF REDUCTIONS ON STATE PROGRAMS

Mr. FOGARTY. With this big cutback from $8 million to $2 million plus, and with the incidence and morbidity rate not going down anywhere near that percentage, what has been the reaction of the States? Have they increased their appropriations enough to counterbalance the decrease in Federal appropriations?

Dr. SHAFER. Well, we do know that in the transition between fiscal years 1953 and 1954 that the States were able to shift some $887,000 of other funds to the venereal-disease-control program across the country.

We do know, however, that there have been cuts in personnel at the State level.

Mr. FOGARTY. There have been cuts in personnel in the States?

Dr. SHAFER. Yes, sir.

Mr. FOGARTY. If there have been cuts in personnel, they have not been able to keep the program up to what it was before?

Dr. SHAFER. No, sir; that is true. State and local appropriations during fiscal year 1953 for venereal disease control were some $15.6 million. During the current year their appropriations have dropped to about $13.5 million.

So, with the $2.1 million decrease in State and local appropriations and the decrease in Federal appropriations, there naturally has been some decrease in personnel.

Mr. FOGARTY. But, still, this is a highly contagious disease and the State line is no barrier. These people do not lose the disease when they cross a State line; do they?

Dr. SHAFER. No; I am afraid that our transient population represents one of our greatest problems at the present time, but most of the State and local health departments have readjusted their methods of operation by using the shortened schedule of treatment.

In fact, we now are treating syphilis with a single injection of penicillin, and economies have been possible in the program.

The State laboratories have been able to reduce some of their operations, so as to make savings in the program, and the program is still operating.

FEDERAL RAPID-TREATMENT CENTERS

Mr. FOGARTY. Is the Federal Government operating any rapid-treatment centers at all at the present time?

Dr. SHAFER. No, sir; we discontinued our last rapid-treatment center as of July 1, 1953.

Mr. FOGARTY. When were the first rapid-treatment centers established?

Dr. SHAFER. It was in 1943.

Mr. FOGARTY. During the war?

Dr. SHAFER. Yes, sir.

Mr. FOGARTY. And, then, they were revived to some extent during the last emergency; is that correct?

Dr. SHAFER. No; I feel that we reached our peak of rapid-treatment-center operation in 1948 and since that time we have been able to consolidate a number of our hospitals, and cut down our operations.

There has been a steady, gradual decrease in the number of hospitals operating, as our outpatient centers have been able to take over the problem of treating these cases.

Mr. FOGARTY. Am I right in stating, then, that even though we have new drugs to take care of these diseases, it is still quite a problem in the country with 90,000 yearly contracting syphilis and 1 million gonorrhea?

That is still a problem; is it not?

Dr. SHAFER. That is still a considerable problem in terms of numbers, and our only problem remaining is to bring those cases to a physician for diagnosis and treatment.

Mr. FOGARTY. It is something that cannot be passed over lightly. I have heard people say "Well, it is just a case of giving one shot of penicillin, and that is all that is necessary."

Dr. SHAFER. No, sir; I personally feel that the psychiatric trauma of having even a case of gonorrhea is very real, and I am sure that the people in this country would be far better off if they did not experience such an infection.

Mr. FOGARTY. That is all, Mr. Chairman.

Mr. BUSBEY. Mr. Fernandez?

GRANTS TO STATES

Mr. FERNANDEZ. This may be somewhat repetitious, but you say on page 1 that all formula grants-in-aid are eliminated, and only special project grants are being made to meet the venereal-disease problems in the 24 States that have not brought syphilis under control, and in other selected high-prevalence areas in States that have reached control, and that in the fiscal year 1955 estimate, all special project grant funds are also eliminated.

Am I to understand by that that during this current year only the special project grants were made to any of the States?

Dr. SHAFER. During the current fiscal year 1954, only special project grants are being made, and I recall that they are being made to 36 of 48 States, District of Columbia, and 3 of the Territories.

Mr. FERNANDEZ. How are those handled? How are they determined?

Dr. SHAFER. These special projects are developed by the State and local health departments and our field personnel, sometimes assisted by our central services personnel.

The project is developed when the State or city can visualize a special venereal-disease control problem in a particular area. If the problem is such that it is logical to have Federal funds to assist it to meet that problem, then a special project is developed, and approved, and funds are made available to that State or health department to meet their problem.

Mr. FERNANDEZ. But, they are now to be made available in your discretion?

Dr. SHAFER. They are very carefully worked out by the State and local health-department personnel, and we take into very careful consideration the resources that they already have available in that area.

Mr. FERNANDEZ. You further state:

Although significant reductions have been made in the incidence of venereal diseases since the postwar years of 1945–47, the rate of decline of this incidence has slowed up markedly in recent months.

Is it not only logical to conclude that some of that marked slowing up or decline is due to the cutting down of this program?

Dr. SHAFER. I feel that that would be a logical assumption; yes, sir.

Mr. FERNANDEZ. And yet the cures and the causes of the disease are well known, and when it seems that we are about to lick the problem, we begin to slow down.

That does not seem sensible to me. How do you justify it?

Dr. SHAFER. Well, we have been forced to consider the needs of the venereal-disease control program with those that exist in other parts of the health department, and I suppose, as priorities are assigned at the local level, they have been forced to shift personnel and resources to other more pressing problems.

We feel that with the constant decline in the incidence of these diseases that perhaps the time has come when the State and local health departments can more readily assess their problems and develop the team with which to meet those problems, and that they can do this with a minimum of actual assistance from us.

Mr. FERNANDEZ. These diseases are highly contagious and, to a large extent, are rather secret. People are inclined to keep them secret, and it is reasonable to assume, is it not, that when a cutting down in the program shows a slowing down of the decline in the rate of incidence, that eventually it will begin to go up and spread, and the more it spreads the faster it spreads, and then it will cost the Government more money to again bring it back to present levels.

Is there any economy in that approach?

Dr. SHAFER. Well, one of our functions is to maintain a very careful surveillance on just what is happening across the country. We hope,

with the funds available for this coming year, that we will still have emergency epidemiology teams that can move into a critical area, and help reduce any upsurge in the venereal-disease field.

CURRENTLY UNTREATED SYPHILIS

Mr. FERNANDEZ. You further say that there is a current reservoir of about 2 million people who suffer with syphilis and who need treatment, and who, without treatment, are candidates for disability and premature death.

We know the problems, and we know how big the problem is, and we know where it is, but yet we will say "Now, we need this money somewhere else," and you let them die.

Is not that about what it amounts to?

Dr. SHAFER. Well, we know that that reservoir of people with syphilis is still under attack by our State and local health departments, and by our private physicians, and they are constantly being screened out of the population and diagnosed and treated as time goes by.

Mr. FERNANDEZ. You say the fiscal year 1955 estimate however, provides for field operations in only the most critical venereal disease problem areas, primarily around military camps, defense industries and recreational areas, which, by the way, does not include Indian areas like the Navaho Indian Reservation.

You say the problems in these areas are largely the result of defense activities, which are the direct responsibility of the Federal Government.

FIELD OPERATIONS

How are those field operations that you speak of going to be carried on?

Dr. SHAFER. We still would hope to have a staff of 150 epidemiologic workers, or investigators, and interviewers, working in and around these critical problem areas.

We feel that since it is in the Federal interest to have those military establishments around the country, it logically follows that it is a Federal responsibility to control these rather serious problems of venereal diseases around these camps.

As we explained earlier, the military has considerable difficulty in keeping interviewers on their own staff at these military installations. They have found it far more satisfactory to keep an interviewer assigned there, to work at their camp, either part time or full time, either a State or local health department worker, or perhaps a Public Health Service worker.

Mr. FERNANDEZ. Well, that is perfectly natural.

Dr. SHAFER. We found that that has been a much more satisfactory way of handling the problem, and we do know, for example, in your State, that the workers that are working around some of those military installations, such as Kirkland Air Force Base, around Santa Fe and Los Alamos, and other installations, are also working with the Indian population in those areas.

Mr. FERNANDEZ. When you say that we still have epidemiology workers and investigators, by the use of the word "we," do you mean the Federal Government alone?

Dr. SHAFER. The Public Health Service will have approximately 150 such personnel for use across the country in fiscal year 1955.

Mr. FERNANDEZ. Will they work with the States?

Dr. SHAFER. They will work with the State and local health departments.

Mr. FERNANDEZ. But the State gets no funds whatsoever for their end of it?

Dr. SHAFER. There will be no cash grants to the States during the next fiscal year.

Dr. SCHEELE. Mr. Chairman, may I add something to that?

Mr. BUSBEY. Yes.

Dr. SCHEELE. The States are not precluded from using the funds from the general-assistance grants for venereal-disease control. So whether the States do have funds in the current program will depend on the determination made within the States. There is almost $2 million more proposed for the general assistance for next year than there is in that account this year.

So, I do not believe the States will reduce their venereal disease control expenditures by the amount that is shown in our reduction in State grant funds in the category of venereal disease.

Mr. FERNANDEZ. Well, I hope I am exaggerating when I say I am afraid that the dependence upon the general-assistance grants is going to be somewhat of a delusion.

You also say on page 2:

> The elimination of the special-grant funds in fiscal year 1955 will reduce epidemiological services to critical military, defense, industrial, and defense recreational areas from 255 areas served during the current fiscal year to 107.

That seems to me to be a very, very drastic reduction in the number of areas, which is more than one-half of the number originally served.

How do you justify that?

Dr. SHAFER. First, a few of the camps are closing. They are closing now, and, of course, we can only go on the best information that we get, and we realize that everyone is making, perhaps, only a guess or an estimate, but we feel that there will be fewer camps covered during the coming year.

We are quite hopeful that State and local health departments will have personnel that can be assigned to the field to fill these gaps in assignments to military installations or the defense recreational areas.

SHIFT OF PROGRAM TO STATES

Mr. FERNANDEZ. Even with the New Look, I do not think there are so many of those defense installations and camp installations being closed, and it is a question of going back and saying, "We know the problem is there, we know the money is needed, we know the services are needed, but we think and hope and pray that the States will take it over and do it."

That is about what it amounts to; is it not?

Dr. SHAFER. Well, we feel that this program has been in operation for a good many years, and very logically our purpose was to stimulate State and local interest in venereal disease control, and we think that result has been a very good one, because the States increased their

appropriations to some $16 million for venereal disease control in fiscal 1949.

Mr. FERNANDEZ. I thoroughly agree with you that we should stimulate the States into doing it, but what you are doing here by drastically making these reductions is discouraging them when they come up against a situation like this where they are not going to be able to do even a fairly good job in the first place.

The reduction should be more gradual.

In the second place, they are taking on more and more and more of these various things in this field and other fields that are being shoved onto them. There is a limit to what some States can do.

There may be no limitation to what some of the States may be able to do, but there is a limit to what a good many States can do, when they have to take over these and so many other fields, for which the Federal Government is declining to assume the responsibility, and which the Federal Government is rather abruptly turning back to the States.

Dr. SHAFER. Well, it has been encouraging to us that while the Federal funds have been reduced, the State and local appropriations have only been cut, over the years, from a peak of $16 million, to the current year's expenditure of some $13.5 million.

In other words, they have maintained funds for the venereal disease control program, even though the incidence has gone down rather sharply.

Mr. FERNANDEZ. Well, that being the program, I do not suppose there is too much we can do to head it off—that being the policy at the present time, but I am satisfied that, at least, in my State and in some other States that I know of, the people are going to want this program effectively continued, and I think they will be justified in being puzzled and alarmed about these reductions.

That is all, Mr. Chairman.

USE OF PENICILLIN

Mr. BUSBEY. Doctor, when did they start using penicillin?

Dr. SHAFER. Penicillin was first used in 1943.

Mr. BUSBEY. The use of that drug for treating venereal diseases is more or less universal now; is it not?

Dr. SHAFER. That is correct, sir, and is correct even in foreign countries.

Mr. BUSBEY. First of all, I personally want to express my gratification at the Department's outlook and evident opinion that after you have stimulated these programs and after you have worked with the States in setting up the programs and getting them into efficient operation, little by little this program and responsibility should be turned over to the States and the local communities. I think that was the reason for starting most of these Federal programs, but all too often the Federal Government is expected to carry on an operation long after the need for centralized operation and control has passed.

STATE APPROPRIATIONS

I believe you made mention of the fact that the States have increased their appropriations for this program by some $16 million. Did I understand you correctly?

Dr. SHAFER. Well, we have a tabulation that shows that when the Federal appropriations were established for venereal disease control in the 1939 fiscal year—the State appropriations have increased along with Federal appropriations to a peak of $16 million.

Whereas the Federal peak was $17 million, and, as the Federal funds have been withdrawn, the State and local funds have decreased only from $16 million to $13.5 million.

Mr. BUSBEY. Do you have a tabulation to show what the various States have appropriated for the treatment of venereal diseases?

Dr. SHAFER. During this current fiscal year?

Mr. BUSBEY. No; I mean since the Federal Government started this program.

In what year did you say it was started?

Dr. SHAFER. In 1939.

Mr. BUSBEY. Do you have a tabulation of the various State appropriations from 1939 down to 1954?

Dr. SHAFER. No; we do not have such a tabulation, and there is a question as to whether that information could be obtained.

I would be very happy to try to obtain that information, however, sir.

Mr. BUSBEY. Is there anything that the States could not do that the Federal Government is doing at the present time in treating these people who suffer with venereal disease?

Dr. SHAFER. Insofar as treatment is concerned, we feel that we are in the best position to conduct research in the use of new drugs, to evaluate the effectiveness of those new drugs, and that, of course, would include development of completely new drugs.

We presently are conducting research which would give us new therapeutic weapons to use in the treatment of syphilis and gonorrhea.

Mr. BUSBEY. I am not talking about research, Doctor. I am talking about treatment. In other words, if the State legislatures appropriated enough money for the State public health services to treat these people who suffer with venereal diseases, there is no reason why it could not be done at the State and local level; is there?

Dr. SHAFER. No; I feel we have the weapons with which they can do the job now. The big problem is to find the case and get it treated.

Mr. BUSBEY. All States, to some degree, have a program for the treatment of venereal disease. Is that not a fact?

Dr. SHAFER. That is true, sir.

Mr. BUSBEY. It is just a matter of how much they want to expand that program, or how much they want to try to lean on the Federal Government.

Dr. SHAFER. That is correct.

Mr. BUSBEY. The natural tendency for them is to say "if we can get it from the Federal Government, let's go get it." But if it is not there, they have to raise their own funds.

Dr. SHAFER. Of course, they feel very keenly about this when a problem is imposed upon them from outside their own borders, and they feel that, perhaps, there is a Federal responsibility.

Again, I am thinking of the military situation, or the migratory agricultural labor problem.

Mr. BUSBEY. I would agree with the States on that. I think there is a responsibility of the Federal Government in those areas.

Dr. SHAFER. That is true.

PROGRAM IN AREAS RECEIVING REDUCED FEDERAL ASSISTANCE

Mr. BUSBEY. In regard to the statement on page 2, where you said that under the 1955 budget the areas where you are rendering assistance would have to be reduced from 255 to 107, is it not a fact that in many of these areas the State and local communities have programs operating, and it would not mean that they would be without a program?

Dr. SHAFER. No; but the fact that we have covered these areas indicates that there is a problem there that is beyond their ability to meet, and we have moved in during this current fiscal year to give them assistance.

It would simply mean that they must increase their ability to meet the problem during the coming year.

Mr. FERNANDEZ. May I interpolate this thought, Mr. Chairman?

Mr. BUSBEY. Surely.

Mr. FERNANDEZ. With the cattle prices and the prices of other industries in my State going down, which will result in a curtailment of tax revenues in the State, if they were not able to take the program under favorable conditions, how in the world are we going to be able to do it now?

I think we have quit at the wrong time.

You take the case of the disease of smallpox, which was the scourge of my State many years ago, when the Federal Government went into that problem, they stayed with it until they licked it, and now you do not find one case of smallpox anywhere in the State, and that is one of those diseases that was very, very contagious. It spread like wildfire, and years ago whole communities were decimated. You see old people who are all pockmarked from the disease in their youth, but now you do not find any smallpox because we stayed with it and licked it.

Mr. BUSBEY. I am very sympathetic with the particular problem that the gentleman from New Mexico has in his State. He does have a problem down there. I think probably his situation is possibly a little more acute than most other States.

I can appreciate the position he takes, and also his thinking on the matter.

Mr. FERNANDEZ. I do not have any figures to show what my State has been doing with respect to appropriations, but I do know from experience that in the late years after this program got started, they have had a much greater awareness of it, and appreciation of what can be done, and were very happy that we were aiming toward what we thought was the same treatment of those diseases that we dealt to the smallpox problem in that State. They are very appreciative of what has been done, and their hopes have been raised so high that it is quite a letdown now.

Mr. BUSBEY. Does the gentleman from New Mexico envision a time when we can say that there is not a single case of venereal disease in the United States, as we can say in regard to smallpox?

Mr. FERNANDEZ. You know, I do not think that is impossible. It would be a wonderful thing if it could be done in this whole United States, but it will have to be done in the entire country.

This is one illness that you cannot treat in spots. If you are going to eliminate it, it has to be done by making an effort to defeat it

throughout the United States and, perhaps, in time, throughout the world.

That is the only way you can do it, but it can be done.

Mr. BUSBEY. Just out of curiosity, Doctor, if we reach the millenium where we could say that there is not a single case of venereal disease in the entire United States, would that mean that it would be permanently eliminated from the United States?

Dr. SHAFER. Definitely not. We would have to watch every day of our lives to keep it from crossing our borders, and coming back in, because the mechanism is constantly with us to develop new epidemics in our country.

I might even show you how explosively and how quickly these epidemics can develop.

Mr. BUSBEY. We are not doing a very good job of keeping people we don't want out of the United States; there are just thousands and thousands of people coming in illegally all the time, and this applies not only to Mexicans, but some other people.

Mr. FERNANDEZ. But every time you stamp one case out, you prevent, perhaps, a hundred cases, but every time you let one case travel across the United States from one State to another, you contaminate others, and that will mushroom and get out of control.

Dr. SHAFER. I have charts here of a few small epidemics that we have experienced in the past few months that indicate the explosiveness with which this problem could get out of hand, if nothing is done about it.

Mr. FERNANDEZ. That is all, Mr. Chairman.

Mr. FOGARTY. Dr. Shafer, this cut is from $8 million last year down to $2.3 million this year, which is about the most severe cut of any constituent in the Federal Security Agency.

What did you say the cut was in the States? You said earlier that there was some cut made last year in the State appropriations.

Dr. SHAFER. The State and local appropriations were $15.6 million during fiscal year 1953, and that was reduced to about $13.5 million during this current fiscal year.

Mr. FOGARTY. In other words, about a $2 million cut?

Dr. SHAFER. That is correct.

Mr. FOGARTY. They cut their expenditures instead of increasing them, as many people think will happen if the Federal Government gets out of these programs. That figure shows that they did not take up the slack but, in fact, they reduced their appropriations as the Federal Government reduced its appropriation.

Dr. SHAFER. That is correct.

Mr. FOGARTY. When the appropriations of the Federal Government started upward, the States increased their appropriations?

Dr. SHAFER. That is true.

Mr. FOGARTY. In this particular phase of the Public Health Service, that figure shows that their appropriations were decreased by around $2 million last year?

Dr. SHAFER. That is correct.

Mr. FOGARTY. And, the problem is still with us?

Dr. SHAFER. Yes, sir.

Mr. FOGARTY. In regard to some of these outbreaks, how fast can they happen? I have not had a chance to go over this matter, but I notice there was one outbreak in West Virginia.

Dr. SHAFER. That particular epidemic occurred in a group of white teen-age children. We had the experience of chancroid being introduced into a community, and some 41 of these individuals were exposed to this one female.

And I believe there were 23 of the 41 cases that were found to have a clinical chancroid when examined by our private physicians and the prevention and control center in West Virginia. Fortunately, we were able to get into that epidemic early and stamp it out. If we can cut across these chain infections quickly, we can very effectively prevent the development of an epidemic. But, for example, this epidemic in Georgia was one we came across after it developed to a considerable extent, and it took quite a force of epidemiologists to go in and work out all those cases. But despite the effectiveness and quickness with which they worked, there were some 61 cases of infectious syphilis and about 7 or 8 others that had gone past the infectious stage and we treated a comparable number with what we call epidemic treatment to prevent further infection in that group.

Mr. FOGARTY. The way I look at an infectious disease is that we have to stay with the problem until it is licked. I do not think we can say, with the record as it is and the statistics as we receive them, that this is the time for the Federal Government to get out of this program; but, when something like this is getting under control, that is the time we ought to police it more, and we ought to continue appropriating at a fair rate in order to keep up this good policing system. With the new drugs, and you are working on some new methods of diagnosis, as you said this morning——

Dr. SHAFER. That is correct.

Mr. FOGARTY. If they are developed, that will all help as the doctor said.

Mr. BUSBEY. If the gentleman will yield; you made some reference to somebody wanting the Federal Government to get out of this program. I do not recall any discussion to that effect.

Mr. FOGARTY. I do not think I said it that way. I said I do not think the Federal Government should get out of this program. Anyway, I would not expect the Federal Government to get out, or to cut down to this extent. I think we are cutting this program too far; that is my feeling. If anyone could prove to me that the States were going to take up this slack, as we decreased these appropriations, I would be the first one to say amen to that type of control. But no one has proven to me or to this committee or to the Health, Education, and Welfare Agency that the States are doing that, or are going to do it. And if they do not do it, I do not think it is right for the Federal Government to say "All right; let it go." I think the Federal Government has a responsibility in an area like this. I think it is a lot different than saying in general terms "We ought to let the States take care of these particular problems."

When the foot-and-mouth disease broke out in Mexico a few years ago, we appropriated $25 million or $30 million with no hesitation and with hardly any hearings, to kill cattle down in Mexico and

set up quarantine lines in order to prevent their being transported into this country. Does anyone know how much money is being appropriated by the Federal Government for research in diseases of plants and animals?

Dr. SCHEELE. No, sir.

Mr. FOGARTY. That is all the questions I have.

Mr. BUSBEY. Thank you very much, Doctor.

THURSDAY, APRIL 1, 1954.

CONTROL OF TUBERCULOSIS

WITNESSES

DR. ROBERT J. ANDERSON, CHIEF, DIVISION OF CHRONIC DISEASES AND TUBERCULOSIS
DR. OTIS L. ANDERSON, CHIEF, BUREAU OF STATE SERVICES
STEPHEN ACKERMAN, FINANCIAL MANAGEMENT OFFICER, BUREAU OF STATE SERVICES
DR. LEONARD A. SCHEELE, SURGEON GENERAL
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
JAMES F. KELLY, BUDGET OFFICER

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$8,240,000	$6,000,000	$3,500,000
Unobligated balance, estimated savings	−174,948		
Obligations incurred	8,065,052	6,000,000	3,500,000
Comparative transfer to "Salaries and expenses, Public Health Service"	−17,633		
Total obligations	8,047,419	6,000,000	3,500,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants to States for tuberculosis control activities	$5,300,000	$4,275,000	$2,000,000
2. Direct operations:			
(a) Cooperative applied research	869,537	875,000	875,000
(b) Technical assistance to States	1,678,722	680,000	485,000
(c) Administration	199,160	170,000	140,000
Total obligations	8,047,419	6,000,000	3,500,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	419	340	245
Full-time equivalent of all other positions	10	10	9
Average number of all employees	357	265	223
Average salaries and grades:			
General schedule grades:			
Average salary	$4,170	$4,329	$4,682
Average grade	GS-5.7	GS-5.8	GS-6.6
Crafts, protective, and custodial grades:			
Average salary	$2,836	$2,913	$2,875
Average grade	CPC-3.3	CPC-3.1	CPC-2.8
Ungraded positions: Average salary	$2,925	$2,896	$2,896
01 Personal services:			
Permanent positions	$1,639,246	$1,232,700	$1,106,820
Other positions	42,240	43,300	41,550
Regular pay in excess of 52-week base	4,265	3,400	3,530
Payment above basic rates	14,910	1,400	1,400
Total personal services	1,700,661	1,280,800	1,153,300
02 Travel	293,364	94,200	79,600
03 Transportation of things	17,766	8,700	7,300
04 Communication services	11,374	7,900	5,200
05 Rents and utility services	19,615	15,800	12,800
06 Printing and reproduction	15,501	10,000	8,000
07 Other contractual services	350,689	124,100	60,300
08 Supplies and materials	267,436	167,100	160,000
09 Equipment	66,662	13,400	10,800
11 Grants, subsidies, and contributions	5,300,000	4,275,000	2,000,000
13 Refunds, awards, and indemnities	292		
15 Taxes and assessments	4,059	3,000	2,700
Total obligations	8,047,419	6,000,000	3,500,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$346,820	$341,147	$253,647
Adjustment in obligations of prior years	8,350		
Obligations incurred during the year	8,065,052	6,000,000	3,500,000
	8,420,222	6,341,147	3,753,647
Deduct:			
Obligated balance carried to certified claims account	73		
Unliquidated obligations, end of year	341,147	253,647	168,647
Total expenditures	8,079,002	6,087,500	3,585,000
Expenditures are distributed as follows:			
Out of current authorizations	7,748,942	5,767,500	3,385,000
Out of prior authorizations	330,060	320,000	200,000

Mr. BUSBEY. The next budget request we have before us today is for the control of tuberculosis. We will be pleased to hear your general statement, Dr. Anderson.

GENERAL STATEMENT

Dr. ROBERT J. ANDERSON. Mr. Chairman and members of the committee, since the specific tuberculosis control program of the Public Health Service was formally organized with passage of Public Law 410 in 1944, tuberculosis control in the United States has made remarkable progress. Increased concentration—by governmental groups, tuberculosis associations, universities, medical schools, private industry, and individual investigators—on the multitude of problems associated with tuberculosis has yielded, in 9 years, such achievements as—

The successful development and application of the mass chart X-ray survey technique for finding hidden cases of tuberculosis among large, apparently healthy population groups;

The improvement and refinement of bacteriological culture techniques for detecting tuberculosis earlier and for diagnosing it more accurately;

The application of the coordinated clinical approach to therapy evaluation by which private investigators throughout the United States cooperate under a common protocol and pool their findings, thereby arriving at earlier and more precise answers in the evaluation of drugs;

The discovery and development of new surgical techniques and antimicrobial drugs, increasing the hopes for an ultimate cure of the disease;

The extension of clinic, laboratory, nursing, and other tuberculosis control services to many more tuberculosis patients (much of this with the assistance of the Public Health Service grant-in-aid program).

These effective developments are the factors which have given us improved diagnosis, better treatment, and a higher rehabilitation rate among tuberculosis patients. These are the factors which have saved lives: Since 1944, tuberculosis deaths have decreased 54 percent, from 54,731 in that year to about 25,000 in 1952. However, this decline in mortality has not been accompanied by a corresponding decline in either the number of cases in existence or in the number of new cases occurring each year.

While new treatment techniques have enabled us to arrest the course of the disease and to prolong the life of the tuberculosis patient, they do not provide the cure-all that had been hoped for for many years, and the overwhelming fact is that these treatment techniques cannot help the hidden cases in our population until they are discovered. Yet accumulating evidence shows that the number of persons X-rayed in casefinding activities is declining, the number of tuberculosis clinics is decreasing, laboratory services are being curtailed, and the training of Public-Health personnel is being reduced.

In spite of the development and successful application of such positive methods as the communitywide chest X-ray survey, in spite of the refinement of treatment techniques, in spite of the promising research that is now being done toward the development of an immunizing agent, people are still falling ill, and hidden cases are still spreading the disease. Paradoxically, these decreases are occurring at a time when our chance of successfully controlling the disease is at a new high.

Concentration on past success may well lead to a sense of complacency that may block future gains. Only continuing and undiminished efforts can make complete control of the disease a reality.

Tuberculosis is a major public health problem. Based on actual studies in numerous communities it is estimated that in 1952, about 1,200,000 Americans—8 out of every 1,000—had tuberculosis in some form; more than half of these were unknown. At any moment, there are 400,000 persons with active tuberculosis; of these, 150,000 are unidentified. These 400,000 persons are actual or potential spreaders of the disease unless they have proper medical and public health supervision.

Eight hundred thousand Americans have inactive tuberculosis which can become active again at any time. An estimated two-thirds of

these are unknown to health departments. These people, too, are potentially capable of spreading infection unless they are discovered and placed under supervision.

New cases reported to health departments have remained at a level of about 110,000 per year. Since many cases go unrecognized and unreported, this is a minimum indication of new tuberculosis in our population. In this context, it is important to note that of the 25,000 deaths from tuberculosis in 1952, one-fourth were unknown as tuberculosis cases until the certificate of death was filed.

These figures represent the human toll of tuberculosis. The dollar cost is similarly great and the burden is widely dispersed throughout the Nation. Cash outlays by the Federal Government and by public and private agencies—in terms of direct expenditure—were over $620 million in 1952. More than half of this amount went toward hospitalization of tuberculosis patients (exclusive of hospital construction), while less than $15 million was spent in the casefinding activity of X-ray screening.

Individuals ill with tuberculosis in 1952 lost an estimated $500 million in income. In that year, over a quarter of a million Americans of working age were unable to work because of the disease. In terms of Federal tax revenue this represents a loss of about $40 million.

In addition, about $1½ billion in potential future production was lost due to premature deaths from tuberculosis in 1952.

The sum of these costs—$2,620,000,000—represents the total estimated dollar cost of tuberculosis in 1952. Based on this figure, it is estimated that each new case of tuberculosis today costs the Nation about $30,000. This cost per case has another meaning, in that the current program under this budget request will pay its way as an investment in health with the prevention of only 125 cases of tuberculosis.

Many of the costs resulting from tuberculosis cannot be calculated. The long-continued period of medical care invariably involved in tuberculosis drains accumulated savings from most patients and their families. In addition to the financial problem, there are also the burdens of readjustment, lowered standards of living, assumption of the wage earner's role by someone else, interrupted schooling, and the uprooting of children.

These serious problems still confront us and must be dealt with directly if adequate control is to be achieved. If in actuality there were either a treatment capable of rapidly and completely curing tuberculosis in all stages, or if in actuality there were a completely effective immunization technique, control could be accomplished simply. These measures do not exist.

It is the aim of the Public Health Service in the present program to further the development of methods and techniques and to stimulate and promote the application of these methods and techniques toward the complete control of the disease, for although there have been many contributions to our knowledge of tuberculosis, some of that knowledge has been only partially applied and much of it remains to be developed.

The Public Health Service is continuing research studies in such areas as immunization and therapy evaluation. Because an effective immunizing agent could eventually reduce the tuberculosis problem in this country to the proportions of smallpox as a public-health

problem, the Service has, since 1946, been engaged in a large-scale evaluation of BCG vaccine, involving a total of 400,000 people. To date, results are inconclusive, and for this reason the Service has not made a recommendation for its widespread use in this country, but does recommend it for use in limited selected groups.

Using the coordinated clinical approach, the Service has been engaged in a continuing evaluation of isoniazid since April 1952. To date, the study has involved over 3,500 tuberculosis patients.

The most urgent operational problem confronting us today is a direct result of the application of the new therapeutic drugs. The drugs result in more rapid changes in the patient's condition and it is, therefore, necessary to keep him under close supervision. Effective as the drugs are, however, the tubercle bacillus becomes resistant to them and more frequent and more elaborate laboratory examinations are necessary to detect this and to appropriately alter treatment.

As a result, the Public Health Service is undertaking operational research studies with the responsible participation of State and local health agencies. These studies are designed to secure fundamental knowledge of such practical questions as:

(1) The value of treatment in the home as compared with treatment in the hospital, and its effect on communities in terms of the spread of infection as well as its effect on the recovery of the individual patients; also the duration of hospitalization for TB cases and the need for and the availability of tuberculosis beds.

(2) The applicability of specific case-finding methods to selected population groups under varying conditions, including (*a*) X-ray screening of special groups such as populations of mental and penal institutions, migrant workers, older age groups and alcoholics; (*b*) tuberculin testing (skin test) as an effective screening technique in geographic areas with low tuberculosis incidence; (*c*) the followup of persons who have been in contact with tuberculosis.

(3) The evaluation of tuberculosis laboratory services with specific attention to their adequacy in connection with the use of the new antimicrobial drugs.

The Public Health Service is also actively engaged in providing expert consultation to help the States apply to their tuberculosis-control programs the latest methods and techniques that have been developed. This consultation includes demonstrations in new or improved methods of case finding, case followup, clinic operations, and the training of professional personnel.

The Public Health Service grants-in-aid program assists the States in applying the latest methods and techniques which are developed for tuberculosis case finding, nursing services, clinics, and laboratory services.

Tuberculosis, with its enormous Federal expenditures; with its high incidence among migratory workers; with its hidden cases moving freely; with many remaining scientific and operational problems, requires nationwide planning. The Public Health Service program, under this budget request, recognizes the responsibility of the Federal Government in meeting the challenge of a disease that does not recognize State boundaries.

BUDGET REQUEST

Mr. BUSBEY. Dr. Anderson, for this program you are justifying a budget request for $3,500,000, which is $2,500,000 below the 1954 appropriation. Most of this reduction is accounted for in the proposed reduction in grants from $4,275,000 to $2 million; is that correct?

Dr. ROBERT J. ANDERSON. Yes, sir.

Mr. BUSBEY. In the third paragraph on page 2 of your statement you say:

> While new treatment techniques have enabled us to arrest the course of this disease and to prolong the life of the tuberculosis patient, they do not provide the "cureall" that had been hoped for for many years, and the overwhelming fact is that these treatment techniques cannot help the hidden cases in our population until they are discovered.

Would you expand on that sentence a little?

Dr. ROBERT J. ANDERSON. Today there are about 400,000 persons in the United States who have active tuberculosis, contagious tuberculosis. Of those, we know about 250,000. The other 150,000 are yet to be discovered. This is on the basis of surveys we have made in local areas. Those 150,000 unknown cases do not have the symptoms of the disease which prompts them to go for medical attention. Their disease has not progressed that far.

NUMBER OF X-RAY PICTURES TAKEN FOR DETECTION OF TB

Mr. BUSBEY. What is the estimated number of case-finding X-ray pictures taken in the calendar year 1952 as compared with 1953?

Dr. ROBERT J. ANDERSON. In calendar year 1952 there were 13,466,229 persons reported by State and local health departments who were X-rayed in mass surveys. Those were apparently well people, not people going to hospitals or physicians for treatment. In 1953 that figure is about 12,600,000 according to our figures.

Mr. BUSBEY. Many of those people found they were not as well as they thought they were.

Dr. ROBERT J. ANDERSON. Unfortunately that is the situation. About 85 percent of those that we discover in X-ray surveys are people who have no previous knowledge of their having had the disease.

PERCENTAGE OF PERSONS FOUND TO HAVE TB

Mr. BUSBEY. What percentage of the persons X-rayed are found to have tuberculosis?

Dr. ROBERT J. ANDERSON. Of the total number of those X-rayed about seven-tenths of 1 percent will show evidence of having had tuberculosis at some time during their life and, of the total number X-rayed, one-tenth of 1 percent, or 1 person in a thousand, will have active disease in a contagious state.

Mr. BUSBEY. That is one out of every thousand will show evidence of tuberculosis.

Dr. ROBERT J. ANDERSON. No; seven out of every thousand will show evidence of having tuberculosis; one per thousand X-rayed will have it in a contagious state; this one will be active right at the moment the pictures are taken.

Mr. BUSBEY. The statistics are gathered through State health departments, are they?

Dr. ROBERT J. ANDERSON. Yes, together with our own experience in the survey program, in which we were active in the big cities. The statistics are comparable, however——

Mr. BUSBEY. Are these final figures arrived at by a sampling method, or are they arrived at by an actual count?

Dr. ROBERT J. ANDERSON. These are figures from specific experience of State and local health departments, as well as that of our own units operating in various places.

NEW DRUGS

Mr. BUSBEY. On page 5 you speak about the new therapeutic drugs. Tell us a little more about the hope these new therapeutic drugs hold for more successful treatment. I remember a year or two ago there was a new drug that some people thought was the answer to tuberculosis control, but apparently it was not.

Dr. ROBERT J. ANDERSON. The drug you refer to is the one we call Isoniazid now. That drug, as I say, has not been a cure for all cases of tuberculosis; but we have found it to be a definite addition to all previously existing therapy.

In our applied research program, in the work we are doing with 25 State and local tuberculosis sanatoria, we are treating cases in those institutions for the purpose of obtaining the quickest results. We find this new drug, Isoniazid, by itself to be the equal of the best previous therapy we had, which was streptomycin plus para-amino salicylic acid. We find that Isoniazid plus either para-amino salicylic acid or streptomycin is better than streptomycin and para-amino salicylic acid. The problems from the standpoint of the control of the disease exist in the fact that the best treatments that we have a the moment require a period of 4 months to achieve their maximum effectiveness, and in the fact that 25 percent or better of the cases that have been treated and who were originally sputum positive, still have tuberculosis bacilli in their sputum and, therefore, are not counted as cured.

Mr. BUSBEY. What has taken place in the past year in regard to developing new drugs?

Dr. ROBERT J. ANDERSON. We certainly are alert to the development of drugs in commercial laboratories and other research laboratories, as well as our own Public Health laboratories, for the possible discovery of any additional drug which in combination with some of the drugs we have, will improve the results we are achieving at the present time. The laboratories are continuously turning out new drugs. Some are at the stage where they must be tried out on animals; others are at the stage where they may be tried out in humans to determine the toxic effects as well as the therapeutic benefits. Some drugs that look well in the test tubes fail on animals; and some that look good on animals, will fail in humans.

ADMINISTRATIVE COSTS

Mr. BUSBEY. As I recall last year, you blamed your high administrative cost on your X-ray teams, which are out of the picture now; but comparing the 1955 budget with the 1953 expenditures, I note there is a

reduction of 62 percent in grants and 47 percent in direct program operations, but only 30 percent for administration. Why is that?

Dr. ROBERT J. ANDERSON. The administration item in our budget request provides for overall program direction, the grant-in-aid operation, as well as direct operations. It covers the items of my own office, for example, and is related to the overall planning and direction. It is not just administrative services that are included here in the item of administration.

In 1953 we did have our full-scale field-service operation and provided X-ray services for the big cities and our administrative costs were higher. In 1955, all of those items related to the X-ray services have been taken out of the administrative cost.

Mr. BUSBEY. On page 625 of the hearings last year I asked this question:

Mr. BUSBEY. I notice there is a 12-percent reduction in total personnel but that no reduction in the personnel engaged in administration is contemplated. Would you like to comment on that?

Dr. ROBERT J. ANDERSON. Our administrative-service activities include my own office together with the central administrative services of personnel, purchase and supply, and keeping these X-ray teams going. With the program as it is proposed here, we need roughly the same staff that we have had before. These people are constantly on the road, Mr. Chairman, and the X-ray teams are constantly on the road, and we need to meet their needs for supplies and equipment. Also, if we do not get their checks to them, we hear about it.

Now it seems to me the X-ray teams last year were being blamed for a great deal of these administrative expenses. Now you don't have these teams, but your administrative costs are still not going down nearly in proportion to your total program.

Dr. ROBERT J. ANDERSON. In 1953, we had 31 persons engaged within the Division on servicing all of the administrative needs; in 1954, because of the fact our X-ray survey team operation did decrease, we reduced that to 22, and in 1955, when the X-ray survey team is eliminated entirely, our staff is below that—is 17 within the Division itself.

Mr. BUSBEY. I assume that makes up the 30-percent reduction, but I was thinking of the 62-percent reduction in grants and 47-percent reduction in direct program operations. It seems to me that the administration ought to follow the other reductions more closely than it does, especially in view of the fact that last year, also, administrative costs failed to decline when the program was reduced.

REDUCTION IN PERSONNEL IN GRADES ABOVE $8,000 PER ANNUM

When we had the budget for control for venereal diseases under discussion a few minutes ago, I explored the situation in regard to people receiving salaries above $8,000 a year as compared with those receiving salaries under $8,000. Your budget request for 1955 is for a total of 245 permanent positions. This is a reduction of over 45 percent from the 461 positions you had in 1952, but in the positions that pay over $8,000 per year there is only a reduction from 35 to 32, or less than 10 percent.

Now why is that true?

Dr. ROBERT J. ANDERSON. In the mass survey operation that was discontinued, there were employed a large number of X-ray technicians and clerical workers in the low grades, and when that operation was discontinued they were reduced in force.

The operations in technical assistance to the States, exclusive of the X-ray service, and the operations in cooperative applied research have not been reduced. Therefore the position structure is about the same.

Mr. BUSBEY. I notice in the Washington office that back as far as fiscal 1952 you had 22 positions at $8,000 and above, and you still have 21 for fiscal 1955.

Then in the field you had 35 positions above $8,000 in 1952 and in fiscal 1955 you still have 32, notwithstanding the big reduction in appropriations.

Dr. ROBERT J. ANDERSON. Once again it was the X-ray survey team that was reduced in the budget, and the personnel that comprised the bulk of that staff was X-ray technicians and clerks. With the discontinuance of that program we have a discontinuance of some high-grade departmental positions, but they are not as numerous as are the lower grade positions because of the fact it was X-ray technicians and clerks who were reduced.

TOTAL OF ALL GOVERNMENTAL EXPENDITURES ON TB

Mr. BUSBEY. How much money Federal, State, and local is spent per year on tuberculosis, including research, control, casefinding, care, and treatment? Do you know how much that amounts to?

Dr. ROBERT J. ANDERSON. Yes. We made an estimate for the year 1952 of $620 million total for direct services in connection with TB and excluding the matter of indirect costs in the loss of income and that sort of thing.

Mr. BUSBEY. What percentage would the reduction in the 1955 budget represent, if the States and localities made no change in the amount of their expenditures?

Dr. ROBERT J. ANDERSON. From the standpoint of specific activities for which they use these grant-in-aid funds, namely, epidemiologic control of disease, our study indicates a total of about $53 million is spent by all groups.

Mr. BUSBEY. I mean in comparison to the grand total.

Dr. ROBERT J. ANDERSON. In terms of comparable expenditures, this would be a reduction of $2.2 million out of a total of $53,687,000. Now the State health departments and the local health departments spend about $25 million; so that this reduction would be about a 10-percent reduction in terms of State and local health department expenditures.

NOTE.—The answer to the question is approximately 0.4 of 1 percent.

Mr. BUSBEY. What did you say the grand total was?

Dr. ROBERT J. ANDERSON. The grand total was $620 million.

Mr. BUSBEY. That was for the calendar year 1952?

Dr. ROBERT J. ANDERSON. For 1952, for the United States and its Territories.

Mr. BUSBEY. Then the percentage of the total that the proposed reduction represents is about four-tenths of one percent.

Have you made any recent estimate since then?

Dr. ROBERT J. ANDERSON. No, sir.

Mr. BUSBEY. So this reduction between what was appropriated in 1954 and what is requested in 1955, taking into consideration the total amount spent on tuberculosis, would be a very small percentage, would it not?

Dr. ROBERT J. ANDERSON. Yes, sir.

WORK OF NATIONAL TUBERCULOSIS ASSOCIATION

Mr. BUSBEY. What does the National Tuberculosis Association do in the field of detection?

Dr. ROBERT J. ANDERSON. The National Association itself does not have any operating X-ray services. They do have committees on X-ray casefinding, in industry and that sort of thing. There are local groups in some instances which participate with the local health department in supporting X-ray units working in cities and counties and even in some instances in States.

In one instance our reports indicate after the cuts have been made in this program they have had to put some of their own money into X-ray surveys.

Mr. BUSBEY. To what does their annual expenditure amount?

Dr. ROBERT J. ANDERSON. I do not know the exact figure.

Mr. BUSBEY. Just give us an approximate figure.

Dr. ROBERT J. ANDERSON. Roughly, $23 million. That is the total over the country by county, city, State, and National groups.

HISTORY OF RECENT BUDGET REQUESTS

Mr. FOGARTY. Doctor, for how much did you ask the Bureau of the Budget?

Dr. ROBERT J. ANDERSON. $5,775,000.

Mr. FOGARTY. And they allowed you $3.5 million?

Dr. ROBERT J. ANDERSON. Yes, sir.

Mr. FOGARTY. That is quite a cut, over $2 million cut by the Bureau of the Budget.

What was the Truman budget a year ago?

Mr. ACKERMAN. $7,645,000.

Mr. FOGARTY. What was the Eisenhower budget?

Mr. ACKERMAN. $5,725,000.

Mr. FOGARTY. What did the committee allow?

Mr. ACKERMAN. The House allowance was $5,725,000.

Mr. FOGARTY. So the House gave you last year just what the Eisenhower budget calls for?

Mr. ACKERMAN. Yes, sir.

Mr. FOGARTY. Well, under this budget, you are not anywhere near the point of being wiped out as venereal disease control is.

Dr. ROBERT J. ANDERSON. Direct operations, with the exception of the mass survey team, are at the same level as last year, that is, in research activities and technical assistance.

DEATH RATE FROM TUBERCULOSIS

Mr. FOGARTY. I think someone gave some figures here 2 or 3 days ago about the death rate from tuberculosis going down.

Dr. OTIS L. ANDERSON. Yes; I did.

Mr. FOGARTY. What were those figures?

Dr. OTIS L. ANDERSON. I stated that the 1940 death rate for tuberculosis was about 46 per 100,000 of population, and in 1946 the death rate had dropped to 40 per 100,000 of population, and in 1953 to approximately 12.

Dr. ROBERT L. ANDERSON. In 1953, it will be about 12.6.

Mr. FOGARTY. 12.6 deaths per 100,000?

Dr. ROBERT L. ANDERSON. Yes, sir. That represents a total of about 20,000 deaths in 1953. And the rapid decline, you notice, has come about since 1946 and is a consequence of the total program. We have been extremely successful in reducing tuberculosis fatality by using our drug therapies which have come into being since 1946—these drugs that I mentioned.

STREPTOMYCIN

Mr. FOGARTY. Streptomycin was discovered about that time, was it not—1945 or 1946?

Dr. ROBERT J. ANDERSON. Yes, sir.

Mr. FOGARTY. I remember at the time streptomycin was first used, it was at a tremendous cost per gram.

Dr. ROBERT J. ANDERSON. Yes. I have forgotten the exact figure. It was $30, or so, per gram.

Mr. FOGARTY. It was 2 or 3 years, or 3 or 4 years, before the average individual could afford to buy it. Did not we do something about that, too?

Dr. ROBERT J. ANDERSON. Yes; there was an appropriation to the Research Grants Division of the Public Health Service for a research program in this new drug. I do not recall the exact figure.

Mr. FOGARTY. I think we gave you some money for that program over and above what the Bureau of the Budget allowed, because of the information we received about the possibilities of streptomycin at that time?

Dr. ROBERT J. ANDERSON. I do not remember that. Maybe Dr. Scheele does.

Dr. SCHEELE. I think there was a sum put in the Appropriation Act to enable us to conduct a streptomycin study. I do not recall the amount, but it was a substantial amount.

Dr. ROBERT J. ANDERSON. I seem to remember a figure of $1,200,000; I am not certain.

CURRENT TUBERCULOSIS PROBLEMS

Mr. FOGARTY. That sounds like it to me.

Because your death rate has gone down considerably since 1946, does that mean the problem itself has gone down with the death rate?

Dr. ROBERT J. ANDERSON. The problem has not gone down in the way the death rate has gone down. The newly reported cases of tuberculosis reported by the health departments remain at about the same level they were in 1940. This last year there were about 108,000 new cases of tuberculosis reported. The number that has been reported year in and year out has ranged between 100,000 and 130,000.

Mr. FOGARTY. When tuberculosis is at the advanced stage, it is a highly contagious disease, is it not?

Dr. ROBERT J. ANDERSON. Yes; that is so.

Mr. FOGARTY. If there are no hospital beds available for them, they have to be isolated at home; do they not?

Dr. ROBERT J. ANDERSON. That is true. Tuberculosis is a contagious disease and one of the functions of the hospital or the Public Health Nursing Service, is to achieve isolation and prevention of the spread of that disease to others.

Mr. FOGARTY. What is the explanation for the decline in the number of people being X-rayed.

Dr. ROBERT J. ANDERSON. The decline in the number of people being X-rayed results from a lower number of X-ray units in operation in the States. The decline, as I mentioned, has been from about 14.6 million down to about 12.6 million.

Mr. FOGARTY. That is in case findings?

Dr. ROBERT J. ANDERSON. That is in case findings; yes, sir. That is a consequence of the decrease in the units available for case findings.

Mr. FOGARTY. What is the reason for the decrease in case findings?

Dr. ROBERT J. ANDERSON. The reason for the decrease in case findings has been that the total resources of all health departments and health agencies have not kept pace with the demand we have had.

STATE AND LOCAL APPROPRIATIONS

Mr. FOGARTY. By that, do you mean that the appropriations at the local and State levels have not kept up in the last 2 or 3 years? Are they decreasing or increasing?

Dr. ROBERT J. ANDERSON. They are increasing. The general trend has been upward in State and local expenditures, as we have observed them over the years.

Mr. FOGARTY. What happened last year? In venereal disease, where we reduced the appropriation last year, the States appropriated $3 million less than they did the year before. How about tuberculosis?

Dr. ROBERT J. ANDERSON. In tuberculosis the net decrease in total Federal, State, and local funds available was $311,000, although our reduction was $1,025,000.

Mr. FOGARTY. You mean there was a reduction of $300,000 in appropriations at the local and State level last year?

Dr. ROBERT J. ANDERSON. Yes, sir.

Mr. FOGARTY. They did not increase their appropriations?

Dr. ROBERT J. ANDERSON. That was spotty. Some States increased their appropriations; others did not.

Mr. FOGARTY. I am talking about the national level. In the overall picture, the appropriations were not increased; in fact, there was a $300,000 decrease; is that correct?

Dr. ROBERT J. ANDERSON. Yes, sir.

LIMITATIONS OF TREATMENT DRUGS

Mr. FOGARTY. Now, what is your experience with the new drug, Isoniazid? I remember when streptomycin was discovered they though that was going to be a cure-all, but then I think experience showed it only affected certain types of tuberculosis, is not that right, and that some TB patients built up a resistance to it?

Dr. ROBERT J. ANDERSON. Yes, that is true for streptomycin, and is also true for Isoniazid. In fact, our treatment of tuberculosis with either drug, streptomycin or Isoniazid, which are two very potent drugs, may end up by having a resistance of the organisms developed to the drugs that were used in their cases. It may be in not more than 25 percent of the treated cases that this happens, but that poses a problem for us technically, namely, to determine the importance of those resistant organisms from the standpoint of transmitting the

disease to other persons and, from the standpoint of the program, to find out whether or not we need to continue to isolate those people for as long as they have resistant organisms in their sputum and spit them out.

TUBERCULOSIS SANATORIA

Mr. FOGARTY. Does every State have State sanatoria?

Dr. ROBERT J. ANDERSON. No; in some States there is no State sanitorium but only county sanatoria.

Mr. FOGARTY. Is there any difference in the results, State by State, in the sanatoria?

Dr. ROBERT J. ANDERSON. The general trend in accomplishment is pretty well uniform over the country, the rate of improvement has been fairly consistent in all of the States.

I am not sure that is responsive to the question you asked.

Mr. FOGARTY. The reason I ask is that we have a pretty good sanatarium in Rhode Island and I was just wondering how it compares with the other sanatoria as far as you know, or if you have any information along that line, and whether the conditions that exist in some parts of the country are conducive to quicker recovery of tubercular patients.

Dr. ROBERT J. ANDERSON. I know your State sanatorium does enjoy an excellent reputation. About the effect of climate on the response patients make in the treatment of the disease, most people feel now that climate has little effect if any on the course of the disease; drugs today are the most important factor.

Mr. FOGARTY. Is that so?

Dr. ROBERT J. ANDERSON. Yes, sir—drugs and surgery.

Mr. FOGARTY. Why is the TB rate so high in Alaska?

Dr. ROBERT J. ANDERSON. The TB death rate in Alaska is high——

Mr. FOGARTY. The highest in the world; is it not?

Dr. ROBERT J. ANDERSON. Not in the world, no, sir; but it much higher there than in this country.

Mr. FOGARTY. More than double; is it not?

Dr. ROBERT J. ANDERSON. Yes. It is interesting that in the two extremes of Alaska and Puerto Rico are possessed the highest mortality rates of any of our States and Territories. I think in both instances it is due to population problems that exist in both places—in Alaska, the Eskimo and Indian, or more particularly the Eskimo and Aleutians.

WOLVERTON REPORT

Mr. FOGARTY. Did you testify before the Wolverton committee?

Dr. ROBERT J. ANDERSON. Yes, sir.

Mr. FOGARTY. Have you read the report?

Dr. ROBERT J. ANDERSON. Yes, sir—that part of it that pertains to tuberculosis.

Mr. FOGARTY. Could you in a few words tell me what is in it? I have not read it yet; I just got it this morning. What does it say about tuberculosis?

Dr. ROBERT J. ANDERSON. It tells about the extent of the problem as we talked about it here this morning in terms of the number of deaths and cases. It presents information about what we believe are

the remaining problems; namely, that of continuing to seek a vaccine which would be better than anything we have now, and to improve our therapy; to develop more rapidly effective treatment for the disease than anything we have at the moment, and to improve our case-finding performance, too.

Mr. FOGARTY. I notice the last paragraph on page 194 says:

> Though Koch identified the tubercle bacillus 70 years ago, and many workers have since contributed to our stockpile of knowledge about the disease, progress in tuberculosis can be achieved through discoveries about new things and new discoveries about old things, and through sound application of the knowledge that we already possess. This will require more funds and more trained workers than are now available in order to speed the development of scientific knowledge and techniques.

What do they mean by that? Is there a dearth of technicians in this field, and trained workers in the States?

Dr. ROBERT J. ANDERSON. Yes, there is. The States are finding difficulty in finding nurses for their sanitoriums and for their public health departments and clinics in tuberculosis. The same is true for doctors and laboratory technicians. Doctors is probably the tightest commodity that there is, and nurses is second.

Mr. FOGARTY. They conclude by saying that the Federal Government should still continue in this work.

Dr. ROBERT J. ANDERSON. I might say with regard to the achievements I referred to earlier in the reduction of the tuberculosis deaths from about 52,000 in 1945 to 20,000 in 1952, that the income potential of the group that died, according to their age, sex, and occupational status in 1945, would have been $2.5 billion if they had stayed alive. In 1952, those that died had an income potential of $1.5 billion if they had lived the rest of normal life. So through the saving of lives alone we have achieved a $1 billion increase in income capacity.

VACCINE INVESTIGATIONS

Mr. FOGARTY. It says:

> Because an effective immunizing agent could quickly reduce tuberculosis in this country to the proportions of smallpox as a public health problem, the evaluation of BCG vaccine and the search for other immunizing vaccines will be carried on through thorough and extensive investigations.

What are you doing now in the way of Federal research on BCG vaccine?

Dr. ROBERT J. ANDERSON. We have established in past years two large projects to determine exactly how effective BCG vaccine is and whether we can improve it. Those are in Puerto Rico and Columbus, Ga., where we have worked with 400,000 persons. Our evaluation and review of that program at the end of last year, 1952, showed us that the time which had elapsed since we had done the vaccination was yet too short to demonstrate the effectiveness of the vaccine. We can make no calculation yet of the effectiveness of the vaccine.

The cases that developed tuberculosis in Puerto Rico and Columbus, Ga., were cases that had been infected years before we came along with our vaccination program.

Mr. FOGARTY. This would be the best answer yet, would it not, if this vaccine would turn out to be really effective? That would be the ultimate goal; would it not?

Dr. ROBERT J. ANDERSON. Yes, sir. In another vaccination activity we are working with animals at our laboratory at the Communicable Disease Center to test out products developed in the various laboratories over the country on a sufficient scale so that we can draw some conclusions before we try them out in humans.

Mr. FOGARTY. Have you had enough money in this appropriation to carry on this investigation?

Dr. ROBERT J. ANDERSON. Yes, sir.

Mr. FOGARTY. When do you anticipate you will have a better answer than you have at the present time?

Dr. ROBERT J. ANDERSON. The value of Puerto Rico and Columbus, Ga., is going to continue down through the years, because we have groups of people who were exactly alike when we first started working with them, and thus we can view the results of the vaccine program years afterward. That is going to be important to us, because in order to know whether or not we should revaccinate people for tuberculosis, we have to know how long the vaccine is effective. Until we have finished the experiment we are working on now with different vaccines, we are not able to make any prediction as to when we will have anything new.

We have found already, however, that the way you handle and care for the vaccine before giving it to humans is very important. The present vaccine is very sensitive to daylight. If you take it out and leave it in the vial on the table here, within a few hours it will be impotent so far as creating the desired effect in people as a vaccine. So we have to be very careful in the vaccine program to handle the vaccine properly.

Mr. FOGARTY. But you think it does show some promise?

Dr. ROBERT J. ANDERSON. We are just beginning to see there may be something going to appear as a consequence of the vaccine program in Puerto Rico.

Mr. FOGARTY. It is something along the line of the vaccine developed for smallpox?

Dr. ROBERT J. ANDERSON. Yes. In smallpox, the smallpox vaccine is highly effective compared to the vaccine we have for tuberculosis at the moment. We just do not have it in the TB vaccine.

Mr. FOGARTY. Could it be compared to the vaccine against typhus that was developed by the Public Health Service?

Dr. ROBERT J. ANDERSON. No, I do not think BCG, as we know it, would be as effective as the typhus vaccine.

TYPHUS VACCINE

Mr. FOGARTY. The typhus vaccine is practically 100 percent effective, is it not?

Dr. ROBERT J. ANDERSON. I do not know what it is in percent.

Mr. FOGARTY. Dr. Scheele, did not you people develop this typhus vaccine?

Dr. SCHEELE. Yes, sir, we developed the present type of vaccine.

Mr. FOGARTY. Is that practically 100 percent effective?

Dr. SCHEELE. So far as we know, it is. Of course it is difficult to have a sort of human experiment.

Mr. FOGARTY. Was it not used to a considerable extent by our Armed Forces overseas?

Dr. SCHEELE. It was and one of the things that made us feel it was fully effective was the fact we did not have cases of typhus in our troops in Africa. The British at that time had not swung over to the use of this new type of vaccine which was developed in the United States and they did have a number of cases in their troops in Tunisia and Egypt.

We had, as I recall, a few cases turn up in our folks in northwest Europe. I think there was a sergeant who developed the disease who was working in some displaced-persons camp where there had been a number of cases, as many as 1,000, at the time the camps were liberated. We found he had had it at some time or other, but had not had his booster.

Then we had another case in which our physician working with DP's had typhus. For some strange reason he had forgotten to have himself immunized, and he slipped through under the immunization program in the military service. And after he had it, we went back over the record and found he never had been immunized for typhus. His case was a very severe case; the sergeant had a very, very mild case; but he had not had the booster, which he should have had.

Mr. FOGARTY. When was the typhus vaccine discovered?

Dr. SCHEELE. I am sorry to say I cannot tell you when the laboratory method of producing the vaccine was discovered. The type of vaccine used by the Armed Forces was developed in the course of studies carried on early during the last war by the National Institutes of Health.

Mr. FOGARTY. In the early 1940's?

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. It is not daydreaming, then, for one to hope that a vaccine can some day be discovered that will prevent tuberculosis, is it?

Dr. SCHEELE. No, sir; it certainly is not.

Mr. FOGARTY. Or for venereal disease?

Dr. SCHEELE. It is possible. In fact, as you have properly pointed out, that would be a real solution to the problem.

I was thinking sometime ago when Mr. Fernandez was referring to eradicating venereal disease, that so long as we do not have an immunizing agent the eradication of diseases such as syphilis and gonorrhea will be very difficult, and the same thing is true of tuberculosis. The production of a worthwhile vaccine would be a major accomplishment.

Mr. FOGARTY. That is all I have, Mr. Chairman.

FEDERAL PART IN X-RAY CASE FINDING PROGRAM

Dr. SCHEELE. May I extend 1 or 2 comments that Dr. Anderson made? One had to do with case finding, with X-rays done in the States. I think the record should show that actually the part of the case-finding program in the States done through Public Health Service help was but a small portion of their total programs. In other words, the reduction that has occurred is not related entirely—to put it another way, the bulk of the work is done by the States or other agencies, and our part was the helping hand and not the whole show.

Also, the mobile units that we formerly had, I believe with one exception, have been or will be loaned to the States and it is our hope and it is their promise that they will continue to use those in the case-finding program; so that we should see, as they build up again, some increase in the work they are doing.

NEGOTIATIONS WITH BUREAU OF THE BUDGET

I would also like to point out, that while it was indicated we had asked the Bureau of the Budget for $5,775,000, and that they had allowed $3,500,000, that there were certain negotiations with the Bureau of the Budget and that on our own initiation, the smaller sum which appears in this request was developed. As a part of that negotiation and our departmental discussion, something approaching $2 million additional money was shifted to general assistance grants. So that the record should not show that we went to the Bureau of the Budget asking for this larger sum and that they arbitrarily made a cut.

Mr. FOGARTY. Then you had better complete the record and tell us exactly what happened between you and the Bureau of the Budget. Just tell me where they gave in, where you gave in, what they promised, and what you promised.

Dr. SCHEELE. Very frankly, we were considering at one time lower sums of money for some of the other grant programs—heart, cancer, and mental health—than appear in our budget request before you. We had discussions with them and discussions in our staff of the most appropriate ways to use money in categorical programs, and as a result of those discussions came up with the distribution exactly as presented in the President's budget.

Mr. FOGARTY. Tell us what you told the Bureau of the Budget, now. Who did you work with in the Bureau of the Budget on this deal you made with regard to the appropriation for the control of tuberculosis and appropriations for grants to the States?

Dr. SCHEELE. Actually the discussions and the work on this were not done in long discussion with people in the Bureau. Mr. Carey, who is head of the Estimates Division which handles our budget, and members of his staff were in on part of the discussions with the Public Health Service, and there were other discussions between members of the Public Health Service staff, including myself, and members of the Secretary's staff.

Mr. FOGARTY. Did you tell the Bureau of the Budget "O. K., you take off a couple million dollars here, but put it back in general assistance to the States and it will be all right with us?" Is that the approach you made?

Dr. SCHEELE. In part, that is correct. Actually, we decided what to ask the Bureau of the Budget for; these things were not firm requests; these things were in process of discussion; they were exchanges of conversations. There were, I presume, some budget estimates on pieces of paper; on the other hand, it was not a cut-and-dried matter of simply asking on our part for one exact amount and a simple action on their part of saying, "You shall have only this."

Mr. BUSBEY. I would like to have you enlighten me a little on this. I was wondering if your negotiation with the Bureau of the Budget

is not something like when we meet in executive session to decide on the final figures we are going to recommend to the full Appropriations Committee for consideration. I may have one figure in mind; Mr. Budge may have another figure in mind on the same appropriation, Mr. Jensen may have a different figure, and Mr. Fogarty a fourth different figure, and Mr. Fernandez a fifth different figure, and then, by just talking and explaining our position, we arrive at a compromise figure.

Is that similar to what goes on in those discussions you have?

Dr. SCHEELE. Yes, sir.

Mr. BUSBEY. In other words, it is discussed from the point of view of the Public Health Service, the whole Department, and the economy and public health needs of the Nation.

Dr. SCHEELE. That is correct. We had a proposal which had a series of components in the various grant lines, and once we had determined what the total would be, something approaching $20 million for the six lines, then we looked at it again and redeveloped the distribution for those lines. And this process is very much like the process you described in discussing the type of report or agreement you arrive at on figures in your committee.

Mr. BUSBEY. It is the best judgment of everybody with all of the factors considered.

Dr. SCHEELE. That is correct, and with the additional factor in this case, as in the other funds in the Public Health Service, that obviously that any one line has to be related to the other funds in the Public Health Service and the Department as a whole.

Mr. FOGARTY. Did you do that same thing in hospital construction; did you bargain with them?

Dr. SCHEELE. Well, we do not necessarily bargain with them.

Mr. FOGARTY. Trade, bargain, negotiate—you can use whichever term you want, but they all mean the same thing to me.

Dr. SCHEELE. In the case of the hospital facilities program, we requested $50 million and that is what they allowed.

Mr. FOGARTY. You requested $50 million because you had an overall ceiling. Is that not right?

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. The Public Health Service was given a ceiling; is that right?

Dr. SCHEELE. That is correct.

Mr. FOGARTY. What was the ceiling?

Dr. SCHEELE. I am sorry to say that I do not recall what the ceiling was.

Mr. BUSBEY. Mr. Kelly could probably furnish that for you.

Mr. KELLY. Mr. Fogarty, as you recall, when we discussed this the other day, I did give you, in effect, a ceiling on several of the constituents of the Department, and when we came to the Public Health Service, I explained that this had been somewhat of an evolutionary process, and that it was difficult to identify that there was a specific ceiling, because there were, in effect, several budgets in the Public Health Service.

It went through an evolutionary process of starting with one figure and moving to another, and each time the Public Health Service was making a revised distribution of this total figure, based on their prior-

ities of which were the most important items, and which ones should be given emphasis within a given field.

As close as you can come, in my opinion, to a ceiling is to say that the Department requested of the Bureau of the Budget $198,298,750 and that, in effect, was the final ceiling which was established for the Public Health Service, within which they made a distribution to the various appropriations programs.

Mr. FOGARTY. Who made the distribution?

Mr. KELLY. The Public Health Service, but on the basis of a quite considerable amount of negotiation that went back and forth in arriving at this ceiling.

Mr. BUSBEY. But, that $198 million did not include this proposed legislation which would add $60 million for categorical grants, that has passed the House, and other legislative proposals yet to be acted on by the House.

Mr. KELLY. That is right, Mr. Chairman. It does not include any of those proposals, for later sums.

Mr. FOGARTY. These figures that we have before us in these justifications do not mean much, then. We do not know what deals have been made between the Public Health Service and the Bureau of the Budget, that are behind the figures presented in these justifications?

Mr. BUSBEY. As far as I am concerned, the request for the control of tuberculosis is very plain. These figures do mean something to me.

Mr. FOGARTY. I thought it was plain, also, until Dr. Scheele. I thought, confused the record.

Mr. BUSBEY. It did not confuse me.

Mr. FOGARTY. Maybe it did not confuse you, but it certainly confused me. You requested of the Bureau of the Budget $5,775,000 and you received $3.5 million for control of tuberculosis, this categorical item right here before us. That was the understanding I had, and that was in the record, and now the record shows that is not correct.

Maybe those are the figures but that is not what is going on.

ADJUSTMENT IN GENERAL GRANT ITEMS

Mr. BUSBEY. Mr. Fogarty, as I understand it, this is definitely a departmental request presented to our committee. Dr. Scheele was simply referring to the fact that there is $2 million more requested in the appropriation for grants to States for general health activities and the States will, of course, use some of it for tuberculosis if the problem warrants it.

Mr. FOGARTY. This appropriation request was cut $2,275,000. How much of that has been transferred to the item of general grants to States to be used for the control of tuberculosis?

Dr. SCHEELE. Mr. Fogarty, as I understand it, that would be up to the States to determine whether they wish to use the money for that purpose or not, and whether it is more important than something else.

Mr. FOGARTY. What authority does the Bureau of the Budget have for taking away money in a categorical grant, and putting it into general assistance for the States to spend for whatever they want?

Mr. LARMON. I assume, again, it is a matter of the discussions with the Department people, at the time, as indicated, but I was not present and, again, I cannot speak factually upon it, but the Department agreed to the increase of roughly $2 million.

Mr. BUSBEY. The committee, if it disagrees with this, can recommend to the full committee that these adjustments be reversed.

Mr. FOGARTY. Was there a request made by the Bureau of the Budget a few years ago to eliminate these categorical grants?

Dr. SCHEELE. There were discussions on combining the appropriation lines into a single line for grants to States. That would not have, necessarily, taken away the earmarking of funds for categorical use.

Mr. FOGARTY. Do you remember what this committee said in its report that year about that suggestion?

Dr. SCHEELE. My recollection is that the committee preferred to see the funds divided into the separate lines.

Mr. FOGARTY. This committee made it very plain in the report that we would have nothing to do with that suggestion at all, and that we wanted the funds kept in these categorical grant appropriations. Is that right?

Dr. SCHEELE. Yes, sir; that is my recollection.

Mr. FOGARTY. That is as I remember it, I think Mr. Keefe was chairman at the time, and I agreed with him. Now the Department is trying to change that, either you or the Bureau of the Budget has made that change.

Dr. SCHEELE. I take full responsibility for it, Mr. Fogarty.

Mr. FOGARTY. Have you had any wish expressed by this committee, or the committee in the Senate, that it should be done that way?

Dr. SCHEELE. No, sir.

Mr. FOGARTY. Or, by anyone else?

Dr. SCHEELE. No, sir; we have none. Mr. Harlow reminds me that the State health officers who receive these grant funds have, over a period of 2 or 3 years now, been passing resolutions which they have given to us, recommending the elimination of categorical grants, and their combination into a single, general grant program.

REVISED REGULATIONS CONCERNING STATE ACCOUNTING FOR FUNDS

Mr. FOGARTY. Did you make a request to the State health officers within the last year or two to give you better information as to how these funds were spent?

Dr. SCHEELE. Yes, sir; we have a new regulation which became effective July 1, of last year, which requires that they keep their books in such a way as to be able to permit adequate verification of expenditure of the categorical grant funds.

Mr. FOGARTY. Why was that regulation issued?

Dr. SCHEELE. This was done to give us a better chance to test their performance in using the funds for the purposes for which the Congress was appropriating them.

Mr. FOGARTY. That was my understanding of why this committee a few years ago refused the advice of the Bureau of the Budget to consolidate these grants into one appropriation item. I did not know that the committee had changed that concept.

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. Yes.

Mr. BUSBEY. As my friend, Mr. Fogarty, knows, one appropriations committee, or one Congress, cannot bind another Congress.

Mr. FOGARTY. That is right.

Mr. BUSBEY. One committee cannot bind another committee.

This committee can decide to take the wishes of the Public Health Service in this matter or it can reaffirm the position which the committee took when the gentleman from Wisconsin, Mr. Keefe, was chairman of the committee.

Mr. FOGARTY. You are absolutely right.

Mr. BUSBEY. I frankly say that these departments, as you know, are trying to do some things I don't approve of; like the request last year for authority to transfer funds, up to 5 percent, between constituents. The committee thought they should not be allowed that authority, and it was not allowed. This year they want to put this $2 million into general assistance grants instead of categorical grants. I am frank to admit that, so far as I am personally concerned, I have no definite opinion on it at this time, but we ought to think about it, and be in a position when we mark up the bill to make a reasonable determination at that time.

Mr. FOGARTY. Well, I agree with you to a certain extent. We should make the decision and not the Public Health Service.

Mr. BUSBEY. That is the responsibility of the committee, but that does not prevent their expressing their judgment to the committee on this question of allocation of funds. If we decided it should be categorical, then we would just take it out of the general assistance program and put it in the categorical appropriation.

Mr. FOGARTY. You are right, but that is not the way they are using the committee.

If they had come to the committee and said "This is what we are doing, and the way we are doing it now, and we think for this reason or that reason it is the way to do it," that would have been different, but we have had to dig this thing out of them. I am just now finding out what has been done.

Mr. BUSBEY. I think there has been a pretty thorough discussion of it.

Mr. FOGARTY. This is a change which has taken place without the prior consent of this committee.

Mr. BUSBEY. The change has not taken place.

Mr. FOGARTY. It has taken place?

Mr. BUSBEY. No.

Mr. FOGARTY. Up to this point it has.

Mr. BUSBEY. It does not take place until the Congress acts.

Mr. FOGARTY. I know that, if you want to be that technical, but there is a change before us. As we have it now, it has been changed. There is no question about that.

Mr. BUSBEY. This is only a request.

Mr. FOGARTY. That is what I am talking about. I am talking about this budget that is before us, and it has been changed.

In regard to the 5 percent transfer authority, if they had come in and said, "We are going to transfer 5 percent of our funds without asking the committee," you would be disturbed about that, and so would I.

Mr. BUSBEY. They asked for that language change, and they are asking for this change.

Mr. FOGARTY. They have not asked for it. They have done it without asking for it. Where have they asked for it? Show me in the record where they have asked for it.

Mr. BUSBEY. By the mere fact that it has been placed in the budget request for general assistance grants.

Mr. FOGARTY. They did it without asking. That is the point I am making. There is nothing in the record which shows they have asked for it, and they know that this committee did take action and turned down a similar suggestion 6 or 7 years ago. I know it does not bind future committees, and future Congresses, but it seems to me that if I was in the Public Health Service and a committee had taken action before I changed my mode of procedure I would at least ask the committee about it.

Mr. LARMON. Mr. Fogarty, as I understand it, the Department is simply requesting this amount for tuberculosis and this amount for assistance to States in general. I mean, that is the recommendation to the Congress.

Mr. FOGARTY. That is not the way I understood it. As I understood the explanation, the main reason for this cut from $5,775,000 down to $3,500,000 was that, because of negotiations with the Bureau of the Budget, they decided to use that money in the general assistance to States program and the States could spend it for whatever they wanted to, venereal disease or heart disease, or anything else.

That was the explanation on the record. That is what Dr. Scheele just explained. It is not earmarked for tuberculosis.

Mr. LARMON. The departmental recommendation is simply this, and that is the justification given.

Mr. FOGARTY. I just happen to be a firm believer in categorical appropriations. Now, it may be that the Congress will not agree with me, but when we appropriate money for the heart program, I want it to be spent on the heart program. I do not want $5 million of it to be spent on heart, and $10 million on cancer.

When we make these appropriations to these medical schools throughout the country for teaching in the heart and cancer program, I think we have strings on those appropriations to make sure that the money is spent for the heart program and not for tuberculosis or venereal disease.

Mr. BUSBEY. We cannot prove that the funds we have been appropriating have been spent in those particular categorical programs. The audit report which we had before us the other day, and which was put in the record, showed that pretty definitely.

Mr. FOGARTY. If that is so, and it is the wish of the committee that we should insist upon an accounting, then we should write some language in the appropriation bill to the effect that this money that is going to the States shall be spent in such a way and accounted for in such a way that it can be shown that each dollar went to the purpose for which the appropriation was made.

Mr. BUSBEY. They are starting on a new system of accounting, as I understand it, to be sure that the funds are spent in that way now, but it has not been that way in the past.

Mr. FOGARTY. That is right, but now they are taking $2 million away from one program, and putting it into the general assistance program to the States with no earmarking at all.

Mr. BUSBEY. Dr. Scheele, in making that decision did you have in mind that the States are in a better position than the Federal Government to know their problem at the local level, and to know what health problems are the most urgent, or what did you have in mind in that regard?

Dr. SCHEELE. Our thinking, as a matter of fact, was very much like the expression which you have just made. It was our feeling that, because of the Federal support to the States coming down, it would be then better for the States to have more leeway to determine priorities within their own program.

The fact we were coming in with no venereal disease request did not mean that they would have no need in that area. They might want to continue some program, and we decided to handle the tuberculosis problem the same way. We felt that it was much more appropriate for them to have this responsibility to judge the problem the same way, to judge between their programs themselves, than for us to earmark that additional amount for tuberculosis.

That position was taken in the light of the overall amount that we were asking for for all of the grant items. Although we made those decisions in the case of venereal disease and tuberculosis, the committee will note that we made decisions in the case of mental-health grants, cancer grants, and heart grants to hold those at the same level as they are in fiscal year 1954.

Mr. BUSBEY. Frankly, there is no secret about it, the hearings since I have been on this committee will disclose the fact that I am one of the greatest States rights advocates in the House of Representatives. I always have been and always will be.

Will emphasizing the general assistance grants have a tendency to point up the responsibilities of the States and make them more conscious of their responsibilities for their programs?

Dr. SCHEELE. I hope that it will, Mr. Chairman, and we have been working with them, giving them some consultation service and advice on improving their own management and accounting procedures as a part of our continuing program.

Mr. FOGARTY. I do not think there is anything in the record so far that will show that this transfer of funds from categorical grants to the appropriation for general assistance to the States will induce the States to put up more money. There has not been anything in the record developed along that line. I think these figures that were given were misleading.

Mr. BUSBEY. At this point, I would like to ask Dr. Scheele to supply a statement on that for the record.

Mr. FOGARTY. Let us have it now, and let us discuss it.

Mr. BUSBEY. We can discuss it now.

Dr. SCHEELE. I believe it should be in the general assistance line in order to give the States greater leeway. It does not preclude the spending of the additional general funds if appropriated for 1955 for either venereal diseases or tuberculosis. It is in line with our policy, which is identical with that expressed by the chairman, to control less from Washington, and to permit the States to assume more control.

Mr. BUSBEY. I will say it is my understanding, and that is the general policy of the Congress, and that is expressed in the Hill-

Burton law. That is one of the grant-item programs, and the policy is to give the States control.

Dr. SCHEELE. Yes, sir.

Mr. BUSBEY. That is, to give the control to the States, rather than have Federal domination.

Dr. SCHEELE. It is also our feeling that the purpose of the categorical grants was to help catalyze the States into programs in those control areas and that we might at some point reduce our assistance in the categorical areas; in this instance we request a total of approximately $20 million for State grants, with more requested to increase the amount in general assistance for 1955.

I might say that this is not a new determination, or new policy. The committee will recall that over a period of a considerable number of years we have done the same thing in the development of the proposals for the six lines. On some occasions we have reduced the amounts allocated to heart, and mental health, and cancer, and tuberculosis, and venereal disease, and have on several occasions pushed the amount we were requesting for general assistance up well toward the statutory ceiling on that line of $30 million. I believe that one year we asked for almost that full amount, but the committee in its wisdom did not see fit to hold the categorical grants up. It has given us the amounts we asked for in the categories, but it did not give us the general assistance increase.

There is nothing new in our shifting away from categorical to the general lines in terms of submissions from the Federal Security Agency over the past several years or the submissions this year from the Department.

Mr. FOGARTY. Is that the statement?

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. I think that is about as poor a statement in support of anything that I have ever heard you give, Dr. Scheele.

I remember very well when these increases were requested for general assistance to States, starting back in 1947. The request in 1951 was the highest one, in the amount of $26 million. I think if you will go back and look at the committee reports, from 1947 to 1951 they make it very clear why the committee refused to raise these appropriations for general assistance to States. They also make it very clear that we did not want the appropriations for categorical grants reduced. This is something new, and you claim it is not something new. It is true that you have tried to do this before, but the committee has always refused you when you tried it before. So it is something new, so far as the committee is concerned, with respect to these transfers resulting from deals with the Bureau of the Budget.

If the committee, this year, does what it has in past years, it will not give you the $1,625,000 increase which you have asked for assistance to States, but in an effort to economize, probably, will reduce the request by that amount and the categorical grants for tuberculosis will be the one that is hurt. That has happened in the past, because of your insistence in doing it your way. I think the record over the past 5 or 6 years will bear out what I have said.

I think you tried to mislead me and the committee when you said that this cut was not a cut. You asked the Bureau of the Budget for $5,775,000 for the control of tuberculosis, and they gave you $3.5 million, which is a cut of over $2 million.

As I look at the increase in assistance to States, general, you have asked for $1,625,000 in grants to States for general public health activities, and that still leaves you over $600,000 short in the deal that you made between the budget for assistance to States, general, and control of tuberculosis.

I for one just do not like that way of doing business. Because of this shifting that you tried in other years—and I think the record will show that you came in asking for increases, up to as much as $26 million, for general assistance to States and you told us at that time that some of this increase would be taken away from tuberculosis and venereal disease—the results show that those categorical programs were hurt, because the committee decided not to go along with your recommendation on such tremendous increases in assistance to States, general, from 1947 to 1951.

I think the reports of this committee over the past 6 or 7 years will bear out what I have said, and I have not looked at them since they were issued. I think that is something that this committee should make the decision on, and in view of what has transpired in this committee before, I think you are on pretty weak ground in doing what you have.

The way I look at it now, it is an invitation to cut the assistance to States, general, and the one that is going to be hurt is the categorical program in venereal disease and tuberculosis.

That is all.

Mr. BUSBEY. I will assure the gentleman from Rhode Island that the committee will make the decision.

Mr. FERNANDEZ. May I observe before we conclude with this item that neither with respect to this item of tuberculosis or the venereal disease item or any other item where it is proposed to slough off unto the States the responsibility, nowhere in the record is it shown that any consultations have been had with the States as to whether they can and will appropriate funds to carry on the work. On the contrary it appears from the testimony today that coincident with our reductions in these funds, parallel reductions have occurred in the States. Yet with activity after activity in this and in other fields we are cutting off or cutting down Federal programs merely with the pious hope that the States will take up and carry the burden.

Mr. FOGARTY. Off the record.

(Discussion off the record.)

Mr. BUSBEY. That is all for today, gentlemen.

FRIDAY, APRIL 2, 1954.

CONTROL OF COMMUNICABLE DISEASES

WITNESSES

DR. THEODORE BAUER, MEDICAL OFFICER IN CHARGE, COMMUNICABLE DISEASE CENTER
DR. OTIS L. ANDERSON, CHIEF, BUREAU OF STATE SERVICES
LEONARD B. ABBEY, BUDGET AND FISCAL OFFICER, COMMUNICABLE DISEASE CENTER
DR. LEONARD A. SCHEELE, SURGEON GENERAL
JAMES F. KELLY, BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

SALARIES AND EXPENSES

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$5,919,750	$5,000,000	$4,397,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		9,000	
Adjusted appropriation or estimate	5,919,750	5,009,000	4,397,000
Reimbursements from other accounts	390,249	300,000	200,000
Total available for obligation	6,309,999	5,309,000	4,597,000
Unobligated balance, estimated savings	−51,390		
Obligations incurred	6,258,609	5,309,000	4,597,000
Comparative transfer to "Salaries and expenses, Public Health Service"	−14,694		
Total obligations	6,243,915	5,309,000	4,597,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
1. General disease-prevention and control activities	$4,176,957	$3,484,000	$3,127,000
2. Specific disease-prevention and control activities	1,144,063	1,035,000	830,000
3. General epidemic and disaster aid	40,656	40,000	40,000
4. Administration	491,990	450,000	400,000
Total direct obligations	5,853,666	5,009,000	4,397,000
Obligations Payable Out of Reimbursements From Other Accounts			
1. General disease-prevention and control activities	390,249	300,000	200,000
Total obligations	6,243,915	5,309,000	4,597,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	1,294	1,092	918
Full-time equivalent of all other positions	13	13	12
Average number of all employees	1,035	892	775
Average salaries and grades:			
General schedule grades:			
Average salary	$3,943	$3,930	$3,952
Average grade	GS-5.3	GS-5.2	GS-5.2
Crafts, protective, and custodial grades:			
Average salary	$2,959	$2,965	$2,975
Average grade	CPC-3.7	CPC-3.8	CPC-3.8
Personal service obligations:			
Permanent positions	$4,800,435	$4,114,904	$3,610,628
Other positions	45,698	39,900	37,900
Regular pay in excess of 52-week base	14,788	12,530	10,400
Payment above basic rates	17,262	9,000	8,700
Total personal service obligations	4,878,183	4,176,334	3,667,628
Direct Obligations			
01 Personal services	4,625,277	3,981,734	3,532,728
02 Travel	294,491	246,700	222,800
03 Transportation of things	95,504	69,100	54,300
04 Communication services	58,620	61,200	58,300
05 Rents and utility services	103,692	105,000	101,350
06 Printing and reproduction	18,546	18,100	17,400
07 Other contractual services	77,505	52,800	39,650
Services performed by other agencies	10,735	5,200	5,200
08 Supplies and materials	339,771	268,534	205,164
09 Equipment	217,246	151,000	111,850
13 Refunds, awards, and indemnities	496	100	100
15 Taxes and assessments	12,827	10,900	9,800
Unclassified (general epidemic and disaster aid)		40,000	40,000
Subtotal	5,854,710	5,010,368	4,398,642
Deduct charges for quarters and subsistence	1,044	1,368	1,642
Total direct obligations	5,853,666	5,009,000	4,397,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	252,906	194,600	134,900
02 Travel	11,585	8,900	7,700
03 Transportation of things	997	800	600
04 Communication services	2,648	2,000	1,700
05 Rents and utility services	2,693	2,000	1,700
06 Printing and reproduction	46	50	50
07 Other contractual services	5,372	4,150	3,250
08 Supplies and materials	102,004	78,400	43,200
09 Equipment	11,167	8,500	6,500
15 Taxes and assessments	831	600	400
Total obligations payable out of reimbursements from other accounts	390,249	300,000	200,000
Total obligations	6,243,915	5,309,000	4,597,000

ANALYSIS OF EXPENDITURES

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$587,606	$440,469	$370,469
Obligations incurred during the year	6,258,609	5,309,000	4,597,000
	6,846,215	5,749,469	4,967,469
Deduct:			
Adjustment in obligations of prior years	15,376		
Reimbursements	390,249	300,000	200,000
Obligated balance carried to certified claims account	549		
Unliquidated obligations, end of year	440,469	370,469	340,469
Total expenditures	5,999,572	5,079,000	4,427,000
Expenditures are distributed as follows:			
Out of current authorizations	5,505,470	4,699,000	4,107,000
Out of prior authorizations	494,102	380,000	320,000

Mr. BUSBEY. The committee will come to order.

This morning we have under consideration the appropriation request for communicable disease control. Dr. Bauer, I had intended visiting the center at Atlanta last fall, but my trip was unexpectedly delayed and I never got as far as Atlanta. I hope someday to get down there and let you show me at first hand what you do.

Dr. BAUER. We regret very much that you did not get down. We have some most unusual activities at the center with regard to our role as the combat arm of the Public Health Service in the control of communicable diseases.

Mr. BUSBEY. I would like to have the opportunity of spending several days there.

You have a statement to make regarding this request, I believe. We will be glad to hear it.

GENERAL STATEMENT

Dr. BAUER. Mr. Chairman and members of the committee, this estimate provides for the work of the Communicable Disease Center, which is the combat arm of the Public Health Service in its fight against communicable and other preventable diseases not provided for elsewhere.

Communicable diseases have plagued mankind from time immemorial. They have become so generally accepted that they rarely cause unusual comment unless they occur in epidemic form. Illness from communicable disease is so widespread and general that it is accepted with complacency by some who regard it as a necessary evil. Others, more fully acquainted with the progress made in communicable disease control during the last half century, mistakenly have assumed that this has led to actual conquest. However, the 104,500 deaths in the United States from these causes in 1950, more than died from all types of accidents combined, testify that conquest is far from being achieved. Still others, viewing the great problems of the chronic diseases, have tended to minimize the acute importance of the communicable diseases. As a matter of fact, a number of the chronic diseases, such as arthritis, heart disease, nephritis, and mental diseases, frequently stem from communicable disease attacks.

It is true that some of the diseases still causing great plagues throughout the world, such as yellow fever, louse-borne typhus, cholera, and smallpox, have been placed in check in the United States. This is not true of a very large number of diseases for which adequate control measures are not now available, and research constantly is exposing new strains and identifying new pathogens, particularly in the viral and fungal groups. In this group of diseases recognition and diagnosis are less dependable and facilities for their prevention and suppression are less available.

Despite these difficulties experience shows us that through continuous vigilance in the search for more knowledge, and the development of new or better means of control, communicable diseases can be subdued. Our efforts toward continuing the recession of this annual toll of illness and death should, therefore, be unremitting.

The activities of the Communicable Disease Center utilize the coordinated efforts of many scientific and technical disciplines. They bridge the gap between basic research and the practical application of

research developments in the prevention and suppression of communicable diseases. It is not sufficient merely to publish the results of the findings of either basic or applied research. The findings in research must be selected, adapted in terms of practical public health, and disseminated for use in local health services. In discharging these responsibilities the center conducts continuing field studies and investigations in the broad areas of the epidemiology of disease, and specific research on the ecology and epizootiology of disease vectors and carriers. Techniques are developed whereby the knowledge gained in research may be best applied in disease control. Continuing research is performed for more sensitive, specific, rapid, and economical means for the laboratory diagnosis of diseases. After field testing and evaluation, to be of value these elements of applied research must be introduced into actual practices in States and localities. Experience has shown that training and demonstration are necessary to their acceptance and general use by local health authorities. These activities, therefore, also provide field demonstrations to State and local public health personnel on new or improved communicable disease control techniques, at the same time training the local personnel in their usage. The Communicable Disease Center also furnishes emergency aid in epidemics which are beyond the capacities of the State and local health departments, upon request, and provides for the prevention and suppression of communicable diseases during and after disasters, under the coordination of the regional medical directors.

The epidemiologic activities, concerning investigations of the frequency, distribution, transmission, and prevention of disease are to be continued with emphasis on (1) the surveillance of communicable disease in the United States, including the recognition and control of epidemics, the eradication of residual foci of endemic disease, and the prevention of the reestablishment of new foci; (2) the further development of the Epidemic Intelligence Service; and (3) epidemic assistance, investigations, and consultation services for State and local health departments. The broad objective of the surveillance program is the eventual eradication of communicable disease in the United States. Surveillance against disease begins with reconnaissance to locate the foci of infection and continues with constant attrition, using the best available men and techniques that can be developed. Although a disease virtually may be eradicated for the time being, the danger remains that the new susceptible hosts and the infectious agent may meet again. Many human diseases of contemporary low incidence still are widely prevalent among animals and present a constant threat for reappearance. Diphtheria and typhus fever are examples of diseases which feasibly may be eradicated by presently known techniques through concerted action on residual foci. Such suppression may well result in gradual eradication throughout the Nation. Constant guard must be maintained to recognize and control epidemics whenever or wherever they may appear, with the cooperation of local and State agencies, and studies will continue on the source, incidence, and transmission of communicable diseases which do not respond to known control methods or for which control methods are not yet known.

The Epidemic Intelligence Service is actively participating in the surveillance program. This Service consists of practical field training for highly selected young medical, veterinary, or nurse officers on a

rotational basis. After an initial orientation course, they are assigned to existing Communicable Disease Center field programs, and to certain State or local health departments where supervised training is provided. They remain on call for emergency epidemic duty anywhere in the Nation. This rotational training is designed to alleviate the present serious shortage of trained epidemiologists, and to provide a reserve pool from which qualified personnel may be drawn in time of national emergency. The epidemiologic activities, by consultation and demonstration, supplement and strengthen the State and local authorities in fulfilling their responsibilities for communicable disease investigation, control, and reporting. This includes calling attention to and recommending action on new problems, such as the influx of malaria cases among returning Korean veterans, the rising importance of epidemic jaundice and leptospirosis, the threat of psittacosis resulting from the increase of popularity of psittacine birds, and the recognition of rabies in bats.

We are continuing concerted studies on means for the control of infectious hepatitis (epidemic jaundice). Long known as a disease of major military importance, its prevalence in civilian populations only recently has been recognized. While only 7,349 cases were first reported nationally in 1951, over 17,000 have been reported during the first 6 months of 1953. The center is also performing concentrated research on leptospirosis, a disease rapidly being recognized as of national importance. This disease has a fatality rate of about 20 percent of cases and no effective treatment is known against it in man. We also are studying rabies in bats, discovered for the first time in the United States in July 1953. On at least 2 recent occasions, 1 in Florida and 1 in Pennsylvania, rabid bats have attacked humans. Subsequently, other bats captured in the Florida area were found to be infected with rabies. Investigations are being made to determine the degree of prevalence of rabies in bats and the extent of the hazard of rabies being spread from bats to other animals and thence to humans.

It is important that the laboratory activities continue to (1) perform research to develop more accurate, rapid, and economical diagnostic techniques, (2) provide diagnostic services in support of the epidemiologic activities of the Center, and diagnosis of exceptional or complicated specimens for the States, (3) provide consultations and evaluations for State and local authorities on new or improved laboratory methods, (4) produce and distribute selected diagnostic reagents not commercially available, (5) train State, local, and Federal laboratory personnel in the newer methods, and (6) provide limited field assistance to States and localities in epidemics.

The joint epidemiologic-laboratory studies on poliomyelitis are planned for continuance. In 1952, 57,628 cases were reported, as against a preceding 10-year average of 21,724. In cooperation with other agencies devoting extensive efforts toward the prevention and control of the disease, the Communicable Disease Center is, first, conducting research to gain more knowledge on the incidence, distribution, and mode of spread of the disease; second, conducting a National Gamma Globulin Evaluation Center, with related field studies, for determining the value of the use of gamma globulin in the prophylaxis of poliomyelitis; and third, performing research on more accurate, rapid, and economical methods of laboratory diagnosis. The compilation of data gathered in 1953 in the gamma globulin

evaluation studies should be completed soon, and the report should be ready for publication early in 1954. These studies consist of investigations on the effects of the administration of gamma globulin where the disease occurs to more than one member of a household as well as the effect of gamma globulin used in mass prophylaxis.

The CDC epidemiologists verify the diagnosis, the dates of onset of the disease, the dates of administration of gamma globulin, and obtain a measurement of subsequent paralytic effects. In the laboratories, Communicable Disease Center scientists during the past 2 years have (1) advanced tissue culture diagnostic techniques for the isolation and propagation of polio viruses, (2) increased the virulence in mice of the type III strain of virus for effective diagnostic usage, and (3) adapted the type I strain of virus to mice, to permit its practical use in laboratory diagnosis. As a coincidental product, during research on the adaptation of the type I strain to mice, it was discovered that even though the virulence was increased for mice, there was a notable decrease in virulence for monkeys. Although this type theretofore regularly had produced paralysis and death in monkeys, after its adaptation it produced no evidence of paralysis. These findings may prove to be of significant value in the development of a vaccine containing living attenuated type I virus for prophylaxis against the disease. Present knowledge indicates that approximately 85 percent of the paralytic cases of poliomyelitis are caused by the type I strain of virus.

The studies on the distribution and control of airborne diseases should continue toward developing better equipment for collection of airborne disease agents, more rapid and economical laboratory identification techniques, and the establishment of baseline data on the normal bacterial content of the air. This research is being conducted in collaboration with other components of the Public Health Service which are working on the various phases of the problem, and in liaison with the Army Chemical Corps. In addition to their peacetime significance, these studies would be of great value in time of war.

In order to control disease vectors of public health importance the following investigations and demonstrations are necessary: (1) the development of more effective techniques for the control of insects and rodents; (2) studies on the mode of action of insecticides and the development of resistance in insects; and (3) the provision of demonstrations and consultative services to State and local health departments for the introduction of new developments in disease control techniques and improvements of present methods. For example, flies, as well as many other insects, can develop resistance to the toxic effects of DDT, either by adaptation or mutation. The studies on the mode of action of insecticides, and the internal mechanisms by which insects develop resistance to them, are of particular importance. Therefore, through these studies we need to develop insecticides which insects will not be able to resist and practical methods to control the existing mechanisms of resistance.

In regard to diarrheal diseases it already has been established that flies are important vectors. It is known that environmental sanitation is an important factor in fly control. To develop more knowledge in this respect studies are being conducted in closed population

groups in eastern Kentucky mining areas, where high rates of diarrheal diseases persist.

The expansion of land irrigation in the encephalitis-endemic areas in the west is being attended by excessive mosquito production. It is known that certain species of mosquitoes can carry the encephalitis viruses and that at least one of these may be important as a potential vector of the disease. Further research, demonstrations, and consultative services are indicated to prevent and control the spread of encephalitis.

The human health hazards resulting from the use of economic poisons present a problem of increasing importance. This results from the extensive use of such poisons and the constant development of new products. Many of the newer ones and some of the old have not yet been adequately tested, either for the adverse effect on the operators applying them or upon the general public exposed. The ultimate objective of these studies is to prevent illness and death due to these toxic materials. These investigations are being conducted in the CDC laboratories at Savannah, Ga., and Wenatchee, Wash., and under actual field operating conditions.

The conduct of training courses for Public Health Service and other Federal personnel is planned for continuance. These courses deal with research developments and newer techniques in insect and rodent control and other public health subjects. These training activities also provide overall supervision and coordination to the decentralized public health training for State and local health personnel, including the preparation and current revision of training courses and other training materials.

Calls from State public health authorities for emergency epidemic aid are received constantly. It is planned that this assistance to the States will continue, upon request, and that further assistance will be given in the prevention of communicable disease during and after disasters, to the limit of our resources.

Communicable disease in the United States causes an economic loss exceeding $2¼ billion annually in industrial absenteeism and an incalculable amount of suffering and death. The need for definitive solutions to the communicable diseases justifies all of the resources of knowledge and facilities which can be directed toward them. If the responsibilities of the Federal Government in this fight against disease are to be discharged, full support of the activities provided for in these estimates is essential.

BUDGET REQUEST

Mr. BUSBEY. Doctor, your request this year is for $4,397,000, or a reduction of $603,000 from the $5,000,000 appropriated in 1954; is that correct?

Dr. BAUER. That is correct. There has been an adjustment for an actual transfer of $9,000, which would make the total reduction $612,000. The reduction of $9,000 was to support the penalty mail cost last year.

EPIDEMIC INTELLIGENCE SERVICE

Mr. BUSBEY. On page 3 of your statement you refer to the further development of the Epidemic Intelligence Service. How many serious epidemics did you combat in those 33 separate emergencies that are mentioned? What was the most serious of them?

Dr. BAUER. Actually last year we had 152 formal requests for epidemic disaster aid, of which 33 were formal requests in which some of the expenses were charged to the epidemic assistance and disaster aid appropriation.

I might say that there have been several very important epidemic problems during the past year. Possibly the most important, at least the best known, is the polio problem of last year of which there were in excess of 30,000 cases.

We had a most unusual outbreak of influenza in the first 2 months of last year, the largest since 1943.

In addition to this, the communicable disease center was faced with a most extraordinary outbreak of acute glomerular nephritis, which is a kidney infection. That took place in the Indian population in Minnesota.

In one of the large middle western cities there was an outbreak of amebic dysentery. In addition to this, 25 percent of our calls were on infectious hepatitis, which is increasing in importance.

In 1951 there were 7,000 cases reported and in 1953 there were 36,000 cases reported.

Mr. BUSBEY. Would it be fair to assume that at least a portion of that large increase would be due to better reporting?

Dr. BAUER. As disease problems become better recognized and reporting services better organized, there is always the problem of how much of the increase is due to improved reporting.

I would like to state in the case of poliomyelitis there has also been an increase in deaths over a period of years, which indicates that the increased number of cases occurring is actual rather than just an increase in the efficiency of reporting.

DESCRIPTION OF PHS ASSISTANCE IN EPIDEMICS

Mr. BUSBEY. Would you describe just what the Public Health Service does to help combat these disease outbreaks?

Dr. BAUER. The communicable disease center of the Public Health Service does not enter into epidemics within States without the special request of the State health officer through the regional medical director in the Department of Health, Education, and Welfare regional office in the area. Following this request, and after a careful appraisal of the conditions, either individuals or teams of specialists are sent to the area. That usually involves medical epidemiologists and laboratory assistants in the form of technologists, or at least sending the specimens back direct to the laboratory, and in the more complicated fields in which vectors or sanitation is involved, people are sent in not only from the communicable disease center but from other areas within the Public Health Service when specially qualified individuals are available.

Mr. BUSBEY. Are these teams recruited among your personnel there at Atlanta and sent to the various States?

Dr. BAUER. These teams come from the personnel in Atlanta and from the epidemiologic intelligence service officers who are stationed within some of the States for training and for special problems.

Mr. BUSBEY. Are the personnel on these teams that are sent into a State on one of these epidemics required to live on the standard $9 a day Government expense allowance?

Dr. BAUER. These men are certainly required to live within the $9 per diem.

Mr. BUSBEY. If it costs any more they have to pay it out of their own pockets?

Dr. BAUER. That is correct, sir.

Mr. BUSBEY. My friend, Mr. Fogarty, and I are both of the same opinion, that something ought to be done under the present circumstances to remedy that situation. I, for one, hope it will be done very shortly. I think it is unfair in this day and age to ask a man to go out on Government business and pay his hotel bills, his meals, and incidental expenses, and try to do it on $9 a day. I know that I could not do it.

INFECTIOUS HEPATITIS

You spoke a minute ago of infectious hepatitis. How is that disease transmitted?

Dr. BAUER. Infectious hepatitis has long been known as one of the major diseases of military importance. Its prevalence in the civilian population has only recently been recognized. It is a disease that we are not able to work with in the laboratory, unfortunately, because there is no known species of animal, or cultural method, that will cultivate or perpetuate the virus; therefore, it is one of the diseases in which there is a great deal of work that needs to be done.

In direct answer to your question, there is a belief in some groups that it is transmitted either by the fecal-oral route, which means feces from the individual to the mouth and through the digestive tract, or through inanimate objects such as water supplies.

It is not yet clearly understood how the disease is transmitted.

Mr. BUSBEY. What do you do to try to control this disease?

Dr. BAUER. The Communicable Disease Center epidemic teams go as described previously. Fortunately, in infectious hepatitis, although we do not know the important answers to its control, we have one very excellent aid and that is gamma globulin. If gamma globulin is used properly it will protect family contacts, and therefore we go out and survey the situation and if need be, give gamma globulin to individuals that are associated with infected people.

RELATION TO WORK OF NATIONAL INSTITUTE OF MICROBIOLOGY

Mr. BUSBEY. How does your work differ from the work that is being done in the National Institute of Microbiology?

Dr. BAUER. The work that the communicable disease center does is concentrated on developmental work and field investigations, studies and evaluations of the immediate problems presented in the control of communicable diseases.

Our energies are first placed upon making practical applications of basic knowledge in order that it can be made useful in the control of communicable diseases. Following this, we demonstrate these techniques to State and local public health workers. Along with the demonstration there is, of course, need for the training of these field people, both State and local, how to use the various techniques, and last, but by far from least, we are the combat unit of the Public Health Service in that we meet these epidemics and disasters throughout the country.

I missed one very essential point, and that is we provide consultation to the States on the various complicated problems relating to communicable disease control.

EVALUATION OF GAMMA GLOBULIN USE FOR POLIO

Mr. BUSBEY. On page 6 you mention conducting research to gain more knowledge as to the incidence, distribution, and mode of spread of polio, and second, conducting a national gamma globulin evaluation center with related field studies for determining the value of the use of gamma globulin in the prophylaxis of poliomyelitis. What advances have been made in this field in the past year?

Dr. BAUER. During the summer of 1953 the communicable disease center of the Public Health Service sponsored a national evaluation of the use of gamma globulin in the protection or prophylaxis against paralytic polio.

Forty-one States and four large cities participated in this evaluation. The plan and method of execution and evaluation was that recommended to the communicable disease center by a national advisory committee consisting of experts in the field of poliomyelitis. This subject is of such importance, Mr. Chairman, I would like the privilege of reading two brief paragraphs from the summary report that appeared in the Journal of the American Medical Association as of March 27, 1954:

> The mass use of gamma globulin carried out on a large scale in 1953 as a method to prevent paralysis in poliomyelitis infection was done as a public-health measure in response to a widespread demand and not on an experimental basis. As such, attempts to draw conclusions regarding its efficacy have not been easy and in many instances impossible. In any event, the method of analysis of carefully compiled and extensive data on the use of gamma globulin in those epidemic areas and populations where it might have been expected to be effective did not yield statistically measurable results. Therefore, its value in community prophylaxis as practiced during 1953 has not been demonstrated. Nevertheless, the committee cannot say that the use of gamma globulin for this purpose produced no effect.

Gamma globulin was used for family contacts. The committee's report on family contacts is as follows:

> On the other hand, the data on the efficacy of gamma globulin in contact use that have been accumulated in 1953 are considered to be adequate for reliable conclusions. They indicate that, with the preparations involved and in the dosages used, the administration of gamma globulin to familial associates of patients with poliomyelitis has had no significant influence on (1) the severity of paralysis developing in subsequent, cases; (2) the proportion of nonparalytic poliomyelitis occurring in subsequent cases in which gamma globulin was given before the onset; and (3) the classic pattern of familial aggregation of cases in the country at large. In view of these conclusions, the committee recommends that a careful reconsideration be given to the present procedures and methods of national gamma globulin distribution and utilization.

Mr. BUSBEY. During the recent drive for funds for combating this disease, I listened to several radio broadcasts and the thought went through my mind that perhaps they were a little too enthusiastic in their hopes for eliminating the dangers of this disease in the near future.

I hope there was adequate foundation for their statements. Can you tell us something about that?

Dr. BAUER. I am not an expert in poliomyelitis. I have devoted most of my energies in the Public Health Service to venereal-disease

control, but I do believe that most of the experts believe that the most effective control of polio will be a vaccine. Further, experts have generally agreed on a plan to evaluate the Salk vaccine this year, and only a true evaluation of this vaccine by unbiased people will answer whether or not it is effective.

Mr. BUSBEY. I would hate to see anything happen, to discourage the people from contributing to this cause in the future, by overselling the possibilities in their campaign for funds this year. Of course, I hope results not only come up to their expectations, but far exceed them. I was just a little apprehensive that they were going a little too far in their claims in the drive for funds without being able to say, "Here are the results that we know from studies, history, and evaluation.

RELATIONSHIP OF AIR-SAMPLING ACTIVITIES OF PHS DIVISIONS

Now, at the top of page 7 of your justifications you state:

Studies on the distribution and control of airborne diseases—the objective of this activity is to protect civilian populations from pathogenic agents disseminated through the air in peace or in war by (1) devising adequate air-monitoring systems, (2) developing diagnostic techniques for rapid identification of aerogenic pathogens, (3) developing and improving equipment for the efficient, viable recovery of pathogens from the air under varying environmental conditions, and (4) determining their quantitative and qualitative relationships to infection.

How is this program related to the air-monitoring work done by the Institute of Microbiology?

Dr. BAUER. The work of the Communicable Disease Center, as stated on page 4–7, is for the general field collection of pathogens and for the development of rapid identification of the organisms by improving known techniques.

The work at the Microbiological Institute is carried out to develop more basic knowledge on the cultural growth and identification of organisms.

I might add, Mr. Chairman, there is a committee established known as the National Research Council to look over very carefully all the projects of the Public Health Service and there is representation on that committee by the Bureau of State Services, in order to avoid any unnecessary duplication.

Dr. ANDERSON. I think Dr. Bauer referred to the Research Planning Council of the Public Health Service rather than the National Research Council.

Dr. BAUER. I meant the Research Planning Council, which is a planning council advisory to the Surgeon General.

Mr. BUSBEY. How is this program of sampling related to the air-sampling program of the Environmental Health Center?

Dr. BAUER. It is my understanding that the work at the Environmental Health Center is based on the physical and the chemical manifestations on air pollution, and there is constant conference with CDC as it relates to the development of equipment to make these collections.

Dr. ANDERSON. I think, Mr. Chairman, in reviewing our work, in addition to what Dr. Bauer has said, the Environmental Health Center, now known as the Robert A. Taft Sanitary Engineering Center is concerned with community air pollution studies, relating primarily

to chemical or biological pollutants causing toxic, allergic, or unsanitary atmospheric conditions, which is slightly more precise than Dr. Bauer mentioned.

WORK ON PLAGUE AND OTHER RAT-BORNE DISEASES

Mr. BUSBEY. On page 12 of the justifications you refer to plague and other rat-borne diseases. What is your department doing in that field?

Dr. BAUER. The Communicable Disease Center is working in its laboratory and field station in San Francisco on the studies relating to the ecology of plague, as well as developing improved techniques on the reduction of plague hazards. Plague is a disease that is widely scattered throughout the 17 Western States in rodents. This is the same plague organism that caused the great pestiferous outbreaks in past centuries. Therefore, it remains an explosive element as far as the human population is concerned.

We also provide demonstrations and consultations to the States of the West in regard to their problems of controlling the rodent population.

In addition to plague as it relates to rodent control, trichinosis, leptospirosis, and dysentery infections, as well as ratbite fever, are carried by rodents in the United States.

RELATIONSHIP OF WORK OF COMMUNICABLE DISEASE CENTER AND OF THE NATIONAL INSTITUTE OF MICROBIOLOGY

Mr. BUSBEY. Dr. Scheele, would you tell the committee, please, what is being done to be sure that there is no overlapping in these different areas between the Communicable Disease Center and the Institute of Microbiology? I know that you try to avoid that, but it seems to me there is bound to be some overlapping.

Dr. SCHEELE. Mr. Chairman, we do not believe there is overlapping in specific projects. There is overlapping in the fact they are working on infectious diseases in general, but that overlap does not result in two people trying to do the same job. They are doing different parts of a program on infectious diseases.

We are handling this through the device that Dr. Bauer and Dr. Anderson mentioned. We have a Research Planning Council in the Public Health Service. This Council is chaired by a member of the Surgeon General's Office staff, Mr. Perrott. The secretary is Mr. Charles Kidd, and on it sit representatives of the three bureaus. I am including the National Institutes of Health as a bureau in this instance, and they review the programs.

They require program reports and review those program reports from the various units and the Public Health Service who are doing research. Whenever they find activities either underway or proposed that appear to overlap, they study those particular activities to ascertain what the situation is, and then we take appropriate steps to assure we do not have overlaps. By this device we feel confident, as we watched it work over a period of several years, that we have eliminated the possibility of overlaps in our research that we ourselves would not want to have.

I might say, too, that the range of research is so great, the different techniques that can be applied to problems are so great, it is almost

impossible for overlapping to occur, and about the only time when you get an overlap is when one scientist attempts to repeat the work of another scientist to add additional weight to that first information, or, in another instance, possibly to break down the first finding.

Mr. BUSBEY. What is the advantage of having two areas separated rather than consolidated? It seems to me if they were consolidated it would eliminate a lot of work of the Council.

Dr. SCHEELE. The points of view of the two organizations are considerably different, Mr. Chairman. The National Institutes of Health is primarily concerned with research in the laboratory. It is concerned very much with basic research, research in biochemistry and biophysics and the basic biological sciences. It is true that the National Institutes of Health like to develop materials which can be used in mass immunization programs, large-scale programs, but at the same time their function is primarily back in the laboratory.

The Communicable Disease Center, on the other hand, has its eyes largely in the field, and carries on certain laboratory research often of an applied nature, in order to make a particular program work in the field.

One good example of that is the work which, for a period of years, was the major work of the Communicable Disease Center. It is not so great now because the problem is approaching the point of being quite well solved.

The Communicable Disease Center was not working on the development of insecticides as such, but as they could find insecticides that others developed, industry had developed, they took these insecticides and applied them in the laboratory on the various kinds of arthopods, the insects, that are transmitters of various diseases. They took insecticides into research on mosquitos, flies which carry disease, fleas and mice, all vectors of disease, spreaders of disease of major importance in the country, and they worked out the effects of these so-called economic poisons on these, and then tried them out through field application in terms of how one could best control these diseases.

It was interesting to discover that they worked out a technique considerably different from the technique we had used previously for malaria control. In malaria control previously we drained swampy areas to eliminate a lot of stagnant water that would be a breeding place for mosquitos, and we also in some instances, when we could not drain adequately, spread oil. In other instances we spread Paris green as a toxic chemical to put into the water itself, but the Communicable Disease Center worked on another technique and developed another technique through its research program which was the spraying of the interior walls of a house where people lived. It was found that by this device alone one could almost literally bring the malarial problem under control. This was done by spraying DDT.

Now, it is simple enough in a few words to say, "Spray DDT on the walls and it will eliminate mosquitos, it will kill the mosquitos that rest on them." But a tremendous amount of research was done in the Communicable Disease Center on just how that material was to be sprayed on those walls, how long it would last, how long it would take before it would evaporate, what amount had to be put on, because, after all, putting it on costs money and if one puts on twice as much, then a large-scale program would cost twice as much

and that might be economically unfeasible, whereas a small amount would be economically feasible.

All these things had to be done in a rather large-scale program to develop the program which has finally and literally eradicated malaria from the United States. It is that kind of an approach that the CDC has been set up to make contrasted with the more pure laboratory approach that the Microbiological Institute makes.

TUBERCULOSIS LABORATORY IN THE COMMUNICABLE DISEASE CENTER

Mr. BUSBEY. I noticed in your annual report for the year 1952 you have a whole section devoted to the tuberculosis laboratory. Why is not this work done under the appropriation for control of tuberculosis?

Dr. BAUER. Mr. Chairman, actually, the tuberculosis laboratory section in the laboratory branch of CDC is supported by the Division of Tuberculosis. It is housed in the Communicable Disease Center for general administrative and professional supervisory purposes. Dr. Robert Anderson in his testimony yesterday, I believe, brought out the fact that they were working on problems of immediate control to the control of TB. The general technical supervision of that laboratory, as to what problems they work on, is that of the Division of Tuberculosis rather than the Communicable Disease Center.

Dr. SCHEELE. Mr. Chairman, if I may say one additional thing about the differences between the institutions, I think the visit that you mentioned earlier which you desire to make would be a very wonderful thing, because I believe that seeing the activities of the communicable disease center on the ground would give you probably a much more clear picture of their approach than the words that we can here speak, or the words that we can write on paper.

Mr. BUSBEY. I am sure a personal visit is much more satisfactory. I do not think anything can be substituted for it.

For instance, I spent a day at the hospital in Lexington, Ky. I did not have any conception of what it was or what they were doing there until I went through the institution.

Dr. SCHEELE. I would like to say further that the Public Health Service, and I know the Secretary, would welcome visits by all members of the committee to any or as many of our institutions as your busy schedule at some future time would permit.

Mr. BUSBEY. Dr. Bauer, do you know of other similar programs that the tuberculosis appropriation supports?

Dr. BAUER. Mr. Chairman, I do not. I am not familiar with the Division of Tuberculosis programs.

Dr. ANDERSON. Mr. Chairman, the laboratory that you have just discussed, is supervised by the Division of Chronic Disease and Tuberculosis, and it is the main research activity of this Division devoted to laboratory work. Dr. Robert Anderson, yesterday, commented on the field research that was going on down in Puerto Rico and, Columbus, Ga., which is related to the study of BCG.

MOTION-PICTURE PRODUCTION

Mr. BUSBEY. On page 14 of your 1952 report, I notice you have rather complete equipment for taking motion pictures. What is the investment in this motion-picture equipment, Doctor?

Dr. BAUER. Mr. Chairman, may I refer that question to Mr. Abbey, our budget officer?

Mr. BUSBEY. Anyone can reply, just so we get the answers.

Mr. ABBEY. We would estimate the retail purchase value of that equipment probably at around $250,000, Mr. Chairman.

However, a good deal of that equipment was obtained after the war as surplus stocks of the Armed Forces from items that they had started to use, and found that they had no longer any need for.

So the cost to the Federal Government or to CDC probably would range more nearly in the neighborhood of $190,000 or $200,000.

If I may add, a good portion of the costs is not involved primarily in the equipment item, but those costs are involved with the conversion of temporary buildings to house this activity in which it is being conducted. I think, possibly, as you may know, the temporary structures which were built at the beginning of World War II have been converted to this use at considerable expense.

Mr. BUSBEY. How many people are employed in this activity at this time?

Mr. ABBEY. Do you refer to the production of the movies and audio visual materials?

Mr. BUSBEY. Yes.

Mr ABBEY. About 28 people in all are in the 1955 budget. At present we have about 26.

Mr. BUSBEY. What type of films are produced?

Dr. BAUER. The films that are produced at the Communicable Disease Center are films and film strips to supplement the training work being carried on by the Communicable Disease Center and the various health departments throughout the country in the control of communicable diseases.

These are technical films, developed for professional people, which are not commercially available anywhere else, and which are most necessary for the purpose of training this never-ending group of new sanitarians, physicians, nurses, and other personnel with the Public Health Service.

Mr. BUSBEY. I suppose you would call them "projects" rather than pictures?

Dr. BAUER. They are, sir.

Mr. BUSBEY. How many projects or how many pictures would you say that this team worked on last year, or for calendar year 1953?

Mr. ABBEY. In 1953 they produced 11 motion pictures. That includes black and white pictures, and some color pictures; 13 film strips; 6 series of slides, which are very similar to the film strips, covering exhibits on public health subjects.

The number of these productions is at times misleading because of the wide variety of subjects, and the technical difficulties involved and the cost of producing them. Of the given subjects, one of which may be 10 times as difficult, or expensive to produce, as another.

Mr. BUSBEY. After these films, strips, and slides are produced, where are they used?

Dr. BAUER. These motion picture and film strips are used by the Communicable Disease Center in its training programs, and they are available for purchase through a private concern which has a contract with GSA for not only the health departments within the United

States, but the health departments all over the world. These films are used, generally, throughout the world, but they are purchased, as I said, from this private concern.

I might add, Mr. Chairman, that CDC makes short-term loans to health departments.

AIRPLANES

Mr. BUSBEY. I believe you have four airplanes.

Dr. BAUER. That is correct, sir.

Mr. BUSBEY. What are they used for?

Dr. BAUER. The Communicable Disease Center work has as one of its major problems the control of vectors of public health importance.

The four airplanes are used primarily for the following:

One is used in disaster aid for immediate use in order to control pests in flooded areas. The other three are used in investigations and development and evaluation of pesticides and insecticides. Many of these areas are so remote that they must be contacted by air, and there is a difference between the types of planes that are necessary. One uses a fast flying plane for pellet dropping, and another type of plane for low flying to spread a fog. One of the planes is so equipped that it can fly low and collect specimens in inacessable areas, and in swamp areas in the South.

Mr. BUSBEY. Where are these four planes located?

Dr. BAUER. These four planes are located at Savannah, Ga.

Mr. BUSBEY. They are all located at Savannah?

Mr. ABBEY. That is correct, Mr. Chairman.

Mr. BUSBEY. What do your records show as to the number of total hours flown during calendar year 1953?

Mr. ABBEY. 229 flying hours, in all. There, again, the number of flight-hours are, perhaps, not representative of the value of the planes to us.

One point is that the planes are used for purposes of testing various kinds of equipment. The plane that I mentioned which flies at night, from 5 to 15 feet above a swamp area to collect insects, is used periodically for that purpose, and requires a large inverted funnel, leading into a box to contain the insects. If we attempted to use the same plane at other times for the purpose of testing or for spraying, or dusting insecticides, it would mean a great many hours involved in converting this equipment, where with the maintenance and retention of these 4 planes, 2 of which cost us nothing, and the other 2 cost $1,270 each, we can avoid the extra expense of periodic conversion of those planes.

Mr. BUSBEY. How many positions do you have in your budget for this activity?

Dr. BAUER. We have a position for one aviator, and the investigators, and the research men within the Savannah laboratory offer auxiliary services to help him. They are the scientists, but we only have one aviator.

Mr. BUSBEY. He does all the flying of the four planes?

Dr. BAUER. That is correct, sir.

Mr. BUSBEY. What does he do when he is not flying?

Dr. BAUER. He also acts as the maintenance man. These planes are getting old, and need considerable attention and they also need some flying to keep them in shape.

Mr. BUSBEY. It would appear that he would have plenty of time for maintenance if he only flies 229 hours a year.

Mr. ABBEY. Well, his time is not spent in maintenance entirely, on the mechanical features of the plane. It also includes the changes of equipment for experimental purposes that go on the plane, and that takes a lot of time, and perhaps a great deal more time than the actual flying hours.

Mr. BUSBEY. He is not able to do that by himself; is he?

Dr. BAUER. Most of it he does by himself; yes, sir, with the aid of the men in the laboratory at Savannah.

Mr. BUSBEY. Could you supply for the record a tabulation of the total hours flown for the different purposes during fiscal year 1953?

Mr. ABBEY. Yes, sir.

(The matter referred to is as follows:)

A. EPIDEMIC AND DISASTER AID

Epidemic and natural disasters periodically occur in which insects present a major health problem. At such time the need for application of control measures is immediate and urgent. One aircraft is especially equipped for applying the special type of insecticides particularly suited for these applications and the plane is maintained in readiness for use whenever the need arises. In addition, all other Communicable Disease Center aircraft are available for epidemic and disaster aid use whenever necessary. Approximately 27 flight-hours were required for this work during 1953.

B. RESEARCH INCLUDING AIR SAMPLING, INSECTICIDE DISPERSAL, ETC.

This program involves research into the use of high-speed experimental aircraft for the sampling of air and dispersal of insecticides at high altitude. Current studies also concern experimental work on the application of pellet insecticides from aircraft and in the development and testing of a method of spraying liquid insecticide which requires no pressure pump or other moving parts. Approximately 125 flight-hours were required for this purpose during 1953.

C. INSECTICIDE APPLICATION

Other investigations involve the spraying of insecticide, particularly the application of liquid insecticide as a fog. Specific studies include the application of carefully calibrated amounts of material to determine the need for defining densities of insect-destroying mist. Approximately 49 hours of flight time was required for this purpose during 1953.

D. INSECT COLLECTION

To further the studies and investigations into the life cycle of some of the salt water species of insects it is necessary to collect specimens at different locations and altitudes which involves the use of special experimental equipment, more or less permanently installed on the aircraft. Approximately 28 hours of flight time was required for this work during 1953.

RESEARCH ON BUILDING CONSTRUCTION MATERIALS

Mr. BUSBEY. I have here two booklets on the results of your research on building construction and construction materials for rat-proofing purposes. Why should this research be done by the Public Health Service?

Dr. BAUER. The purpose of rat-proofing, of course, is to prevent rats from having access to food supplies and people within buildings, and as I mentioned earlier in the testimony, rats not only carry infectious diseases, but destroy food products. These pamphlets are used as a training audio-visual facility in the training programs on

the control of rodents, given not only by the Communicable Disease Center, but by the health departments throughout the Nation.

Dr. ANDERSON. Mr. Chairman, that might also be compared with some of the earlier work of the Public Health Service in connection with excluding rats from ships, because of their being involved in the transmission of disease.

Considerable time was spent in working out ways and means of ship construction that would build rats out. The same purpose is served here by suggesting ways and means, including construction and materials, so that rodents will be excluded from entry into the building, for not only preventing destruction of food products, but primarily preventing entry of carriers of disease.

Ship designers and those responsible for ship construction have adopted suggestions which would make it possible to exclude rats from ships insofar as possible, and similarly this would be helpful in the same way in building construction.

Mr. BUSBEY. It may be all right, but at first glance it strikes me that getting into research on buildings and building materials is a little far-removed from the work of the Public Health Service.

Dr. ANDERSON. One of the important diseases in that connection is typhus, and it has only been within recent years that typhus has been brought under control; one method of control being the proper construction of buildings.

Mr. BUSBEY. Would it not be just as reasonable, because of the tremendous number of people that are killed in traffic accidents, to put research on traffic control in the Public Health Service also?

Dr. ANDERSON. We are interested in one phase of that work. You will recall, when we were discussing the activities of the National Office of Vital Statistics, that we mentioned one phase of the traffic control work. Of course, there is a degree of interest, and we proceed only as far as our interest logically should go.

Mr. BUSBEY. Are you continually carrying on research in building materials in this division?

Dr. ANDERSON. Dr. Bauer, I do not think our research is very extensive; is it?

Dr. BAUER. There is very little work being carried on. It is incidental to the control of rodents or vectors, but it is a very minor function within the technological branch.

Mr. ABBEY. I might add that in the past year we have been much more greatly concerned with means for controlling typhus fever. In doing so, at our technical development laboratories at Savannah, we tested various kinds of rodenticides and methods of applying DDT to rat runs, for example, to kill the fleas on rats and prevent the spread of typhus.

Incidental to that, we tested and developed means for trapping rats to get them out of the way to see whether that was a solution to the control of typhus, and along with it, we went into the testing of some building substances to see what rats could get through, and what would prevent the entry of rats into new construction, and into some old buildings.

The booklet which you have before you was largely involved in the work on typhus and such expenditures were incurred as a result of research which was made in years gone by. We have practically none of that going on at the present time.

Mr. BUSBEY. Mr. Budge?
Mr. BUDGE. No questions.
Mr. BUSBEY. Mr. Fogarty?

HISTORY OF RECENT BUDGET REQUESTS

Mr. FOGARTY. Doctor, what was the Truman budget for communicable-disease control in fiscal year 1954?
Dr. BAUER. $5,735,000.
Mr. FOGARTY. Was the Eisenhower budget the same?
Mr. KELLY. No, sir; it was $5,335,000.
Mr. FOGARTY. There was a cut of $400,000?
Dr. BAUER. Yes, sir.
Mr. FOGARTY. What did this committee allow?
Dr. BAUER. The 1954 appropriation was $5 million.
Mr. FOGARTY. What amount did you request of the Bureau of the Budget for this fiscal year?
Dr. BAUER. For this year, $4,710,000.
Mr. FOGARTY. And they allowed you $4,397,000?
Dr. BAUER. That is correct, sir.
Mr. FOGARTY. So, the Bureau of the Budget cut the request of the Department by $313,000, and your total cut for fiscal year 1955 compared with fiscal year 1954 is $603,000?
Dr. BAUER. Yes, sir.
Mr. FOGARTY. It is $1,338,000 below what the Truman budget requested a year ago; is that right?
Mr. KELLY. Yes, sir.
Mr. FOGARTY. That is, a $1,338,000 reduction?
Mr. ABBEY. That is correct.

MALARIA PREVENTION ACTIVITIES

Mr. FOGARTY. On page 4 of your justifications you say that the estimate for fiscal year 1955 is $612,000 less than fiscal year 1954 funds, and it includes reductions as follows:
Malaria prevention activities, $45,000. I thought we had malaria under control in this country. Do we?
Dr. BAUER. Malaria is a disease that has been very successfully controlled by the efforts of the Communicable Disease Center, and the State and local health departments, since 1952.
However, there is a problem of keeping malaria under control. The vectors of malaria—the mosquitoes are still abundant, and the people are still not immune to malaria. There is an influx of malaria into the United States with returning individuals from outside the United States.
During the calendar year 1953 there were still 1,203 cases of malaria in the United States.
Mr. FOGARTY. So, the cause is still with us; that is, the cause as far as the carriers of this disease. And there are still swamps that breed mosquitoes to transmit the disease in this country?
Dr. BAUER. That is correct, but the modern method of control which must be continued is protecting the households, and household dwellers from the mosquitoes, but the vectors are still abundant.

Mr. FOGARTY. How much of a cut, percentagewise, is that in malaria-prevention activities?

Dr. BAUER. 45 percent.

Mr. FOGARTY. In regard to your studies on mosquito prevention and control as related to water-resources projects, you have a cut of $116,000.

What are you presently doing in that activity?

Dr. BAUER. The Communicable Disease Center is continuing its investigations, and demonstrations, in the control of vectors as they relate to water resource projects. There has been a discontinuance of some of the activities, and that is the actual assignment of vector control specialists directly to river basin projects.

Mr. FOGARTY. What percentage cut does this $116,000 represent?

Mr. ABBEY. That is about an 88 percent cut.

CONTROL OF DISEASE VECTORS

Mr. FOGARTY. In the field of "investigations and demonstrations on control of disease vectors," you show a cut of $133,000.

First, how much of a percentage cut is that?

Mr. ABBEY. Approximately a 25 percent cut.

Mr. FOGARTY. Dr. Bauer, how important is this activity?

Dr. BAUER. The control of disease vectors?

Mr. FOGARTY. Will you please tell me what you mean by "disease vectors?"

Dr. BAUER. A disease vector is an arthropod which is a bug, or a rodent, that can either be the carrier or the reservoir of an infectious disease, and when they come in contact with a nonimmune individual, the individual gets the disease. It is a very important spreader of disease and during the Middle Ages, pests and so forth were the natural host of many of our real pestilences.

Mr. FOGARTY. How important is this work? How important do you think it is?

Dr. BAUER. The control of disease vectors, not only on a surveillance basis, but on the basis of technical development, is an important function.

Mr. FOGARTY. Will you please give me a couple of examples of how important it is?

Dr. BAUER. Well, at the present time we are faced with endemic areas of encephalitis throughout the country—I mean, throughout the West, and west of the Mississippi.

Mr. FOGARTY. Why is that? Is it because of these new irrigation projects?

Dr. BAUER. It is because of the old irrigation projects, and the plans for development of new irrigation projects.

In regard to this particular disease, we have not developed adequate control measures, and under the budget presented here, we intend to continue the study of vector control in the technical development of means of vector control, not only in encephalitis, but in the vectors that carry rabies.

We have the wildlife reservoir of rabies that must be studied, and plan to carry out those activities this year.

Mr. FOGARTY. How does encephalitis affect a human being?

Dr. BAUER. Encephalitis is a very devastating disease in the human being, in that it kills a great many of them. I think this committee was informed last year that the worst outbreak that ever happened was in 1952 where there were seven-hundred-and-some-odd cases in one county in California, and 45 deaths.

Mr. FERNANDEZ. Is that not sleeping sickness?

Dr. BAUER. Yes, sir; and I might add that many of the people who do not die receive permanent brain damage.

PUBLIC HEALTH TRAINING

Mr. FOGARTY. You are cutting your public health training activity $54,000. What percentage cut is that?

Mr. ABBEY. That is about an 11 percent reduction.

POLIOMYELITIS INVESTIGATIONS

Mr. FOGARTY. In your poliomyelitis investigations in fiscal year 1954 you had expenses for nonrecurring items in the amount of $50,000. What expenses were those nonrecurring items?

Dr. BAUER. In fiscal year 1954, because of some very excellent work at the Montgomery Laboratory of the Communicable Disease Center, it was necessary to increase our expenditure for animals and cages and so forth, and that will not be needed during the coming fiscal year.

Mr. FOGARTY. However, you are still continuing your investigations?

Dr. BAUER. Our investigations will go on to the same extent as last year at the Montgomery Laboratory, as it relates to poliomyelitis.

Mr. FOGARTY. That means you will spend about $400,000 for these studies?

Dr. BAUER. It is anticipated that we will spend a similar amount of money as we are spending this year, less the $50,000.

Mr. FOGARTY. I see.

In the requested appropriation language you have bracketed out that provision which was in last year's act—

of which not less than $400,000 shall be used for study, prevention, and control activities on poliomyelitis.

Dr. BAUER. We have requested that this be deleted from the bill because it creates technical problems in accounting, since it is not economical or practical to segregate the cost of work on poliomyelitis from those works of other communicable diseases. A good example of that is that we raise a great many mice. The man who takes care of the animal husbandry is the same man who raises mice for tests on virus diseases other than polio, and under the restriction of the bill there is a great deal of cost accounting that is necessary.

That, I believe, is unnecessary, and therefore we are requesting the deletion.

Mr. FOGARTY. Why was this placed in the bill originally? Did the Senate put this in?

Dr. BAUER. The Senate put this language into the appropriation bill, for the first time, in 1954.

Mr. FOGARTY. I did not think we had ever considered anything like that. Deaths caused by poliomyelitis in children are still very

high, are they not, compared with other communicable diseases in children?

Dr. BAUER. The deaths caused by poliomyelitis are still on the increase.

Mr. FOGARTY. The deaths are still on the increase?

Dr. BAUER. Yes, sir; the cases of poliomyelitis reported in 1952 were 57,628, which may be compared with the 10-year average of approximately 21,000 cases.

Mr. FOGARTY. In the Wolverton report, issued in March of this year, they said that more children died in 1952 from poliomyelitis than from any other reportable communicable disease; is that correct?

Dr. BAUER. If you will bear with me, I shall get the figures on that.

Mr. FOGARTY. They, also, have other statistics to the effect that of the victims of poliomyelitis, 50 percent recover completely, 30 percent have no disabling aftereffects, 14 percent are severely paralyzed, and 6 percent die.

LEADING CAUSES OF DEATH AMONG CHILDREN'S DISEASES

Dr. BAUER. The greatest cause of death in the communicable disease field of children under 2 years of age is the group consisting of pneumonia, influenza, and bronchitis, in which there were 14,000 deaths reported in the last figure which I have.

Mr. FOGARTY. What year was that?

Dr. BAUER. 1946.

In regard to diarrheal diseases, I would like to mention that deaths in that category were quite high—6,000.

Mr. FOGARTY. Were there not outbreaks of that disease in some hospitals in the last couple of years? Wasn't there testimony on that last year?

Dr. BAUER. Mr. Fogarty, this is my first appearance on the communicable disease appropriation. However, I would be very happy to make a statement on diarrheal diseases.

Mr. FOGARTY. I wish you would, because I think that either last year, or the year before, examples were given where some hospitals in this country had epidemics.

Dr. BAUER. Diarrheal diseases rank third as a cause of deaths in children under 2 years of age. It is a major cause of illness and death in adults.

Mr. FOGARTY. What is that again? Did you say it is the major cause?

Dr. BAUER. It is a major cause of death and illness. I do not want to give the impression to this committee that it compares with the real killers, but it does kill people.

I also want to emphasize the fact that in vast areas of the South diarrhea is an important problem, because of unsanitary conditions, and it is known, by the work of Dr. James Watt, who used to be with the Microbiological Institute, to be carried by flies, which is one of the reasons we are so interested in our vector-control program.

Mr. FOGARTY. Have you had any serious outbreaks of diarrhea in children in any particular section of the country in the past year?

Dr. BAUER. There have been outbreaks of diarrhea in nurseries, but unfortunately I cannot name the specific areas, but I would like to state that the States along the southwestern part of the United

States have a death rate from diarrhea many, many times that of some of our other States which have better sanitary conditions, and incidentally there is an area in one of our Middle Western States, in the coal-mining area, that has a very high rate of diarrhea.

BUDGET FOR WORK ON DIARRHEAL DISEASES

Mr. FOGARTY. In your statement, you mention the discontinuance of demonstrations on the control of diarrheal diseases and a reduction of $87,000 is listed.

Are you getting out of that field entirely now?

Dr. BAUER. Under the existing request for money for the Communicable Disease Center, we are getting out of the demonstration phase of the control of diarrhea. Our investigations, as they relate to the problem, will continue.

Mr. FOGARTY. Do you personally think that these controls and demonstrations should be discontinued? Are they no longer useful?

Dr. BAUER. I would like to explain a little further what I mean by discontinuance. Under the existing request, we are no longer stationing people within States to carry out the demonstrations. In the future, professional men will be stationed in our field stations, scattered throughout the United States, to give part-time consultation in the demonstrations of diarrheal control.

Mr. FOGARTY. Do you personally think that that will lower the incidence of diarrhea by discontinuing the program to that extent?

Dr. BAUER. Mr. Fogarty, I am a medical-control officer——

Mr. FOGARTY. I am asking you from a professional point of view, about this matter.

Dr. BAUER. I think that it will.

From a professional standpoint, the timelag may be present because of this change, but if I were to make a prognostication, it is my sincere hope and belief that they will continue to decrease under the existing program.

Mr. FOGARTY. Will you give me some reasons as to why you feel that way?

Dr. BAUER. We are developing better methods of vector control; we are developing better methods of diagnosis and treatment.

Mr. FOGARTY. Why should we have any men in these regions now for demonstration, if it is of lessening importance and if it is well on its way toward becoming insignificant? Why could we not cut that a little more?

Dr. BAUER. The control of communicable diseases should be relentless, and you cannot get a disease down and ignore it. You have to always keep the work going on this particular disease, and in my experience, a dollar properly spent for the control of communicable diseases is a dollar well spent.

Mr. FOGARTY. Well, suppose you had $135,000 in this particular activity; do you think you could to a better job than you are doing without it?

Dr. BAUER. Yes, sir.

Mr. FOGARTY. You do?

Dr. BAUER. Yes, sir.

Mr. FOGARTY. Do you think the incidence of diarrhea will go down much faster, and quicker, if this money were available?

Dr. BAUER. I would say that there is a good possibility that the incidence of disease caused by vectors would go down.

Mr. BUSBEY. That would be a hope on your part, anyway.

Dr. BAUER. Well, that is correct, sir.

Mr. FOGARTY. I am asking you this question based upon your experience, and from a professional viewpoint. In your estimation, do you think if you had this money the incidence of the disease would go down?

Dr. BAUER. From a professional point of view, the control of disease is tied to the control measures, and is dependent upon the energy that is put into the program.

Mr. FOGARTY. The more energy that is put into it, if you have the means of control, the better off the people are going to be in those areas that are affected?

Is that not so?

Dr. BAUER. That is correct, sir.

Mr. FOGARTY. What is the situation in regard to the discontinuance of these demonstrations on rat-borne diseases?

What demonstrations are going to be discontinued there?

Dr. BAUER. The statement made, as it relates to the discontinuance of demonstrations on diarrheal diseases, can, generally speaking, be the same as that on rat-borne diseases. It is a discontinuance of assigning people to States rather than a discontinuance of the total activity.

The investigations will go on.

BUDGET FOR WORK ON PLAGUE

Mr. FOGARTY. What about the field investigations on plague where there is a reduction of $20,000?

What do you mean by plague?

Dr. BAUER. Plague is a disease caused by the bacillus pestis, which is a very deadly disease that killed many people throughout the Middle Ages and it is always a threat to this country, because it is endemic in the wild rodents of the West, and it is impractical to control the wild rodents of the West.

We are attempting to find the weak link in the rats in order to control them.

The disease, incidentally, is transmitted from the rat to the human being by an oriental flea.

Mr. FOGARTY. That is, an oriental flea that lives on rats?

Dr. BAUER. They live on rats and jump onto human beings when the rats come in contact with the human.

Mr. FOGARTY. Is that the only place they live—on rats?

Dr. BAUER. That is the important public-health manifestation to this country. I am not qualified to answer the question directly.

Mr. FOGARTY. That is all, Mr. Chairman.

Mr. BUSBEY. Mr. Fernandez?

Mr. FERNANDEZ. I have no questions.

Mr. BUSBEY. If there are no further questions, we thank you, Doctor.

Dr. BAUER. Thank you very much sir.

THURSDAY, APRIL 8, 1954.

NATIONAL INSTITUTES OF HEALTH

WITNESSES

DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. C. J. VAN SLYKE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
ALBERT F. SIEPERT, EXECUTIVE OFFICER, NATIONAL INSTITUTES OF HEALTH
DR. W. PALMER DEARING, DEPUTY SURGEON GENERAL, PUBLIC HEALTH SERVICE
DR. JOHN R. HELLER, DIRECTOR, NATIONAL CANCER INSTITUTE
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
ROY L. HARLOW, CHIEF FINANCE OFFICER, PUBLIC HEALTH SERVICE
ROBERT W. BROWN, ASSISTANT BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

GENERAL STATEMENT

Mr. BUSBEY. The committee will come to order. We have under consideration this morning the expenses of the National Institutes of Health.

We are glad to welcome Dr. Sebrell back to the committee, and will be happy to include your prepared statement in the record at this point.

(The statement is as follows:)

STATEMENT OF DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTE OF HEALTH

Mr. Chairman and members of the committee, as a Nation, we are now in the fifth year of an expanded medical research effort. During that period there has been a most remarkable growth of both private and public support for medical research and for training medical research manpower.

This upsurge of support is concrete evidence that the American people have firmly endorsed both the humanitarian and the direct economic gains to be achieved ultimately by medical research. We have, as a Nation, adopted by the force of logic and public opinion two policies:

Capable investigators should be supplied with the funds they need to exploit their ideas fully.

Additional manpower of high caliber should be trained to expand our national research capacity.

In the evolution of these two lines of policy, the Congress has been a leader, both through establishing the structure for research in the form of national medical research institutes and through providing substantial appropriations to make the machinery operative not only in these institutes but also in nongovernmental research and teaching institutions.

In the light of these developments, we need not take time to reiterate the significance of the disease problems in economic terms and in terms of suffering among individuals and their families.

The time has come when it is no longer valid merely to complain of the problems created by chronic disease; we should be able to point to concrete advances achieved over a wide front. The concentration of brains and facilities over this period leads to a legitimate expectation of solid advance.

These advances are being made, and at every level, from fundamental laboratory work to direct clinical application.

The Institute Directors will indicate in some detail the recent accomplishments of investigators throughout the Nation in their respective fields of categorical responsibility, but a brief checklist here will indicate a tremendous vitality and forward surge in a wide array of fields.

In the field of mental diseases, there are firm leads that begin to explain some mental disorders in terms of biochemical differences between the normal and the mentally ill person. This is a general development of the utmost significance. At the same time, advances on the psychiatric and psychological fronts are opening the way to more precise early identification of those who will and those who will not respond to established treatment procedures. The development of reliable tests in this field will effectively multiply the efficiency of our limited manpower and treatment facilities.

In heart disease, the discovery of new anticlotting substances has resulted in the saving or prolonging of many lives. Drugs have been developed which can stop often fatal arrhythmia—irregular heartbeats—and a more precise understanding of cardiac failure has permitted the development of more rational treatment. This latter advance has not only increased the life span of countless cardiacs but has returned vast numbers to comfortable and profitable employment.

In the neurological field, significant progress against epilepsy as a significant disease is presaged by the first fruits of research—the discovery of new drugs, advances in surgery, and a beginning understanding of basic biochemical defects which characterize this condition. The sacred scientific truism that severed nerves in the central nervous system cannot grow back together has been disproved, a discovery that opens a whole new field of study of great potential practical importance.

In the cancer field, a positive, simple test for cervical cancer has been found. Of particular importance in this regard is the developing conviction, based on sound observations, that a detectable preinvasive condition is the rule rather than the exception. The disappearance of this form of cancer as a serious health threat now depends solely on early detection and treatment. Radioactive isotopes are providing both better diagnostic techniques and better treatment for certain other forms of cancer.

In the field of arthritis, rheumatism, and other metabolic diseases, use of ACTH and cortisone as treatments has been widely publicized, as have some of their deficiencies. Equally stimulating to medical scientists is the avenue of study that these and related chemicals have opened up—studies directed toward an understanding of the underlying causes of the wide array of these related diseases.

In the field of microbiology, recent advances have centered attention on viruses and bacteria as the cause of some chronic and degenerative diseases as well as acute infections. This is quite a new approach to the significance of microbiological agents, and one of tremendous potential significance.

In short, the first big national push in medical research is beginning to pay off even within a 5-year time span. And 5 years is a short period in medical research. It can be confidently predicted that the flow of productive findings will grow if medical research is supported amply and wisely.

It can also be predicted that many answers will not be found for decades. This is not a cause for despair, for experience has already amply shown that very real progress in saving lives can be made before ultimate causes are known.

In reviewing the general status of medical research and the recent advances, one of the developments that emerges most clearly is the rapid extension of productive biochemical and biophysical studies into the medical and biological fields. Medical research is coming of age as a quantitative science. There is perhaps no more fundamental trend in medical research, and no trend which it is more important to encourage.

This development must be nurtured by funds, for equipment and competencies from the physical sciences which are essential to these studies are expensive. It must be nurtured by patience, for the studies are almost infinitely complex. It must be nurtured by proper organization for research, because the final fruition of medically related research in the physical sciences is through a productive partnership with clinical research.

Against this background of general national developments in medical research, we can assess developments in the programs of the National Institutes of Health.

In establishing national medical research institutes, Congress assumed that by setting up an organization and providing funds, research in lagging areas could be stimulated.

It is gratifying to report that this assumption has proved to be sound in the fields of neurology and blindness, and arthritis and metabolic diseases.

A major program development has been the rapid maturing of the Neurology and Blindness Institute to achieve a dimension which begins to approach the importance of the problem. You will recall that this Institute was established in 1950 and received its first appropriation in 1951. Today, it has gathered together a brilliant young staff and is already conducting and supporting significant studies in epilepsy, multiple sclerosis, cerebral palsy, and the other neurological and sensory disorders. The initiative and drive of this group has been one of the high points of the year.

At the same time, as Dr. Bailey will report in detail, the entire field of neurological research throughout the Nation has been encouraged and invigorated.

And all of this has gone forward not through Federal direction or control of individuals, institutions or organizations, but through a close collaborative effort.

A comparable development has taken place in the Arthritis Institute. In spite of the enormous importance of the rheumatic diseases (there are now about 10 million victims of arthritis and rheumatism in this country), the public and to a degree the professional world was apathetic about these diseases. Then, in quick succession, there came a series of events which reversed the trends. The Arthritis and Rheumatism Foundation was established to raise funds and lead the way in professional and public education. The National Research Council set up a national scientific committee to assess progress, problems and gaps in the field. Then there was the dramatic announcement of the discovery of cortisone and ACTH. Finally, under the Omnibus Medical Research Act in 1950, the National Institute of Arthritis and Metabolic Diseases was established. In this last 3 years, using revolutionary research approaches and strengthened by strong private and public cooperation, it has become evident that this field, like neurology, has come into its own. Just several months ago there was held at Bethesda the first national symposium ever to be held on research and research training in the arthritis and rheumatism field.

One of the major program developments at the National Institutes of Health, as you gentlemen have good reason to know, has been the opening and initial occupancy of the Clinical Center. I will not attempt here to recapitulate what this facility has meant to our research program by making it possible for us to integrate laboratory and clinical investigations. Suffice it to say that the mere existence of this structure on our campus has had implications that reach to the very roots of our scientific programs.

As might be anticipated, we have had to pay a great deal of attention during the past fiscal year to the sheer mechanics of moving into the Clinical Center. We have been concerned with such things as the timing of purchasing supplies and equipment, planning space occupancy to encourage integrated research effort, establishing the policies governing care of patients and their relationships with the research environment, adjusting laboratory design to meet the specialized needs of investigators who were not employed when the initial plans were made, and replanning occupancy, purchasing, and staffing schedules when contractors have failed to meet specifications or deadlines.

These may appear to be matters of detail, but we have found that the satisfactory resolution of a vast array of details is in practice the only way we can progress towards our general objectives.

The entire staff has worked hard and has been most cooperative in bearing with the inevitable delays and frustrations that are involved in such a complicated undertaking. In the face of these problems, patients have been brought into the Center, the medical care provided them has been excellent, and clinical research has begun in all Institutes.

One of the most important elements of our work related to the Clinical Center has been the establishment of good working relations with physicians in private practice, professional groups, and medical institutions. The good will and support of these groups is important in the referral of patients, in the use of consultants, and—most important—in the ability to establish and maintain the many kinds of formal and informal cooperative working relationships which are the heart of any successful medical undertaking.

There are more than a hundred study patients in the Clinical Center today. We anticipate that there may be over 200 by July 1. There is virtually no way in

which this research facility resembles a general hospital (in which the patient day costs can be accurately predicated) save in the quality of medical care we provide. There the similarity ends. The research design may demand special diet, frequent tests, extra nurses, expensive medicinals, total isolation—all factors which might be essential to research but serve to render valueless any presumptive baseline data seeking a standard by which to convert dollars into patients. It might not be amiss for me to reiterate that in the Clinical Center, the welfare of the patient comes first. It is to my best interest and that of the scientific staff to fill the Clinical Center beds with patients and keep them filled, to the limit of our program needs and the resources available to us. But without experience data, I cannot and will not stretch the limits of good medical care and disrupt the standards of good research practice in order to meet a ratio of dollars to beds.

RESEARCH GRANTS, RESEARCH TRAINING, AND DISEASE CONTROL

The basic, tested policies underlying the research-grant programs have remained basically unaltered.

We plan to continue support, not only to clinical investigations and research directly applicable to medicine, but also to studies which are relevant to under lying problems but not immediately applicable to medicine. We consider this approach to be so important that—in addition to giving it support from the programs of the various Institutes—we have a program under the Division of Research Grants directed especially to support of basic studies which have a direct relationship to medicine as a whole instead of to single diseases categories.

We initiate large-scale coordinated research programs when there is a firm scientific consensus that this approach is profitable.

We continue to rely heavily upon the judgment of university and other non-Federal scientists in assessing the worth of proposed projects, and particularly the caliber of men. We continue to seek general policy advice from national advisory councils.

The esteem in which the program is held in the scientific and academic worlds continues to be a source of satisfaction to us, as it must be to those committees of Congress which have sponsored our enabling legislation and assumed our continuing support of research and research training by establishing our level of expenditure.

This is not to say that we do not face problems. We have some very real ones. For example, we are continually assessing the extent to which the year-to-year project grants provide the kind of long-term stability needed for research. We have worked out means of providing reasonable stability, and are constantly considering modifications to make the programs more satisfactory.

As another example, we have been seriously considering whether we are compensating institutions adequately for the costs that they incur when we give their staffs research support. This is the perplexing indirect cost problem that has been with us since the program began. We are proposing a policy change during the coming year that will be discussed when we outline the prospects for fiscal year 1955.

Manpower training—fellowships, teaching grants, and training grants

In common with all scientific fields, medical research faces the prospect of shortages in the future unless training now is accelerated.

Two considerations are particularly significant in the manpower picture in medicine. First, the advance of medical research has been so rapid that specific training is required to bring the findings to the point of application. Second, there is an extreme shortage of people in specific fields—of which mental health is perhaps the outstanding example.

In combination, the fellowship, teaching-grant, and training-grant programs are designed to meet these problems. The Institute Directors will indicate the specific manpower problems faced in their areas of interest, and the manner in which the manpower programs are tailored to meet the needs of specific fields.

Control grants

It is becoming increasingly clear that much chronic disease which will strike millions of people can be dealt with effectively if the existence of the disease can be found early enough. Even without a full knowledge of cause, we now know more about how to halt the progress of many chronic diseases than is being fully applied.

The control grants are our effort to close the gap between scientific knowledge and application of findings to patients.

In this area, too, the Institute Directors will tell you specifically what the control measures are accomplishing.

While the National Institutes of Health budget is complicated in detail, the essentials of program policy underlying the figures are simple.

The 1955 budget proposes that the total research grants, research training, and disease-control areas be financed at a somewhat lower level than in 1954—$46.3 million as compared with $48.6 million.

In the direct operations of the National Institutes of Health, the 1955 budget is at the 1954 level, except for increases required primarily for the increased patient load and other research facilities in the Clinical Center contemplated in 1955.

These generalizations do not apply uniformly among all the Institutes; the differences will be covered when the Directors explain the essentials of their 1955 budgets.

The coming fiscal year is a critical one in the development of the National Institutes of Health. We are attempting to work out a new approach to medical research—integration of laboratory research with research on patients on a scale never before attempted. Never before in the history of medicine has it been possible to bring together in one place the full array of diverse talent that modern medical research requires.

We owe an incalculable debt to Congress not only for making available the funds required for this pioneering enterprise, but also for establishing the medical research institutes that give us a series of well-rounded frameworks on which to build our programs.

Our responsibility, which we feel most keenly, is to make the most of the unique opportunity that has been given to us. Our central objective is to set the general policies that will result in the greatest volume of research of the highest caliber that can be extracted from the funds made available to us. This means that we have the strongest interest in economy and efficiency so that the research dollar will be most productive.

The task of creating an institution where research can be truly integrated and productive is extremely complex and difficult. Many of the problems are intangible, but nevertheless of central importance.

Obtaining men of the highest quality is fundamental. Given a salary scale that is far below what industry can pay and particularly below the amounts that qualified clinicians can earn, we have done very well in attracting excellent scientists. In the 2 or 3 years ahead, we shall continue to fill in other key positions. Our recruitment is spread over about a 6-year period not only because of the care we take in selecting people, but because we wish our hiring to cause the minimum disturbance to medical schools, hospitals, and universities.

Another matter of concern to us is to create the general expectation that collaborative work among institutes and between clinicians and laboratory people is the normal way of life. Here we are working against fairly prevalent attitudes. The physician often feels that the scientist has no understanding of patient care and hence a subordinate role in clinical studies. The scientist in turn often believes that the physician has no appreciation of the experimental method and hence is not a fully competent scientific colleague. We have to modify these attitudes to build the kinds of research teams we are aiming for.

At the same time, we have to make sure that the individual who functions best and has a great deal to contribute as an independent individual is given an adequate chance to produce.

In viewing the evolution of the national institutes of health toward our ideal, we see the maintenance of scientific communication—the easy exchange of ideas and facts—as critically important. When people are expected to work with others whose fields are relatively strange to them, there has to be a common meeting ground of understanding. Even within one scientific field, knowledge, and ideas increase so rapidly that a scientist is hard put to it to keep up with his field. And if he does not keep up with his field, he begins to be a second rater. We feel almost a moral obligation to those who have chosen to throw their scientific careers in with us to provide the chance for growth. This is not a matter of personal satisfaction for scientists either, but a matter of setting the conditions which enable them to do their jobs well.

An indispensable element of scientific communication is the ability to meet scientific colleagues. One of the differences between an inbred, sterile research organization and one that is vigorous and productive is the range of contacts of the staff. We feel that investment of a moderate part of our appropriation in travel to scientific meetings pays for itself many times over. For the coming fiscal year, it is important that we have funds to allot to travel to scientific meetings in sufficient amounts so as to provide real implementation to the acquisition

of the vital new views and information that are such an important stimulus to high quality research.

Another problem on which we continue to work is the integration of seven separate institutes in a single building. This involves a delicate compromise between centralization of services that can be most economically and most effectively performed by a single clinical center organization, and retention in the Institutes of decisions—particularly on the research side—that must be left to the individual programs. This is an internal management problem that we are settling ourselves.

In integrating research, flexibility—the ability to shift men and resources as the needs of specific investigations may indicate—is of key importance. Any impediment to our ability to push our resources quickly and easily into the areas of research where a stronger effort is needed will reduce the research return on the investment in NIH. It would, for example, be most difficult for us to conduct studies most effectively if our budget were arbitrarily divided into clinical and laboratory components and this compartmentalization were carried over into program operation. There is a good deal of work that is purely clinical or purely laboratory, but there is also the vital area—at the heart of the concept of the clinical center—where freedom to move in either direction is essential. We are most appreciative that the congressional budget gives us this degree of freedom, and we intend to show by results that the action is wise.

In terms of general development of the research program at NIH, the budget provides for the activation of 350 beds by the end of fiscal year 1955. We believe that the clinical care funds and the research funds to be so balanced in the budget that we can both take good care of this number of patients and build a sound research program around them. Of course, the welfare of the patients comes first, and we will always keep the number of patients within our capacity to provide the best medical care.

As the number of patients increases, each Institute will move progressively to include a type of research where groups of patients with similar diagnoses and other characteristics are the basis for clinical studies. To date, a substantial portion of the clinical research has had to be on a series of individual patients. The group approach will not only speed investigations, but make them more effective.

At the same time, specific clinical studies will become more detailed, complex, and refined. During the current fiscal year, the depth of most studies was limited by operating problems associated with inaugurating patient care and by the fact that some key investigators had not yet been recruited.

Prospective developments in the grant programs

The medical research talent and facilities of the Nation are not yet receiving support at the optimum level from the scientific viewpoint. The budget proposal for 1955 in the research grants field—a total of $27.7 million—is not a proposal that will move the Nation forward toward attainment of the optimum level. In this period of fiscal strain, the general economic effects of Federal expenditures as well as research considerations must of course be taken into account in setting medical research grant levels.

We all look forward to the day when heavy domestic and foreign defense expenditures can diminish so that a greater share of the product of our economy can be devoted to health and other areas of productive effort. Meanwhile, we can improve the program by paying careful attention to the way we handle the funds.

Beginning in fiscal year 1955, we hope to make an administrative adjustment of minor importance in total budgetary terms, but of substantial importance to scientists and the institutions with which they are affiliated. This change is an increase from a maximum of 8 percent to a maximum of 15 percent in the proportion of a research grant which will be allowed for the indirect cost of research undertaken by grantees. It has become increasingly clear that the lower allowance now in effect falls far short of meeting the costs which schools must meet when one of their staff members receives a grant from us. The school has to provide utilities for the laboratory, expensive library service, housekeeping services, and so forth, that are not part of the direct costs of research. We believe that by increasing this allowance to 15 percent, we will be dealing more equitably with the institutions. Even the increase to a maximum of 15 percent will not fully cover all of the indirect costs in many institutions. But we continue to believe that a sharing of the costs of research, rather than a 100-percent Federal assumption of costs, is a sound policy.

A new program in the field of chemotherapy of cancer will come into full flower during fiscal year 1955. This new venture, initiated during the coming year,

is a highly organized multiphasic approach, the primary target being the lymphomas, more particularly leukemia. The program will bring the biologist, the organic chemist, the pharmacologist and the clinician together in an integrated program. Its progress will be guided by group direction within a framework that permits such rapid interchange of information as is usually not possible outside of a single organizational unit. The program was initiated in the belief that exploration of this particular field, in the particular manner and at this particular time will be highly rewarding; perhaps as great as was the case in other fields of chemotherapy such as the malarias and bacterial diseases.

In the manpower area—teaching grants, training grants, training stipends and research fellowships—the functions and objectives of the programs remain as they were in earlier years. The level of the programs will be reduced in 1955 about 10 percent below the 1954 level. As in the case of research grants, this represents not a reduction in need, but an adjustment to the realities of the Federal budget.

We anticipate further strengthening of medical school curricula in the heart and cancer fields if the budget is adopted.

We also can predict that about 90 percent of the research fellows will continue to remain in the medical research field.

As the flow of research findings is augmented, the productivity of measures to control chronic disease in the States will increase.

The grants to States administered by the Mental Health, Cancer, and Heart Institutes, proposed at the $5.7 million level appropriated in 1954, will complement efforts in other fields that are administered by the Bureau of State Services. The Institute Directors are prepared to explain the variety of early detection and diagnosis techniques applicable to the specific disease groups.

CONCLUSION

We are pleased to be able to report accelerating progress in virtually all fields of medical research.

This progress has come about not by chance, but as the result of joint public-private support of medical scientists. This support has come at a time when a solid scientific justification for intensified effort is warranted. The support has been provided from both public and private sources in a way that has expanded rather than limited the ability of scientists to do what they consider most productive. Those of us whose lifework is medical research, are truly appreciative of the understanding and support which has always marked both the deliberations and the actions of this committee.

The Nation is now reaping dividends on its investment. With reasonable stability in support and wisdom in handling funds, we can look forward to continued progress.

Mr. BUSBEY. Doctor, would you be kind enough briefly to summarize your general statement which you have presented to the committee?

Dr. SEBRELL. Thank you very much, Mr. Chairman; I will be glad to do so, indeed.

It is always a pleasure to appear before this committee and tell you about the National Institutes of Health. There are two points that I would like to make in summary of the prepared statement which has been submitted to you. One of these points concerns accomplishments and, in this regard, I may say that in the field of medical research and biological research it appears that we are on the verge of very great accomplishments in the entire field. Dr. Vannevar Bush, who is president of the Carnegie Foundation and directed the wartime research efforts of the country during the war, said in a recent speech that he felt that biological research, or research in the life sciences, was at a point very similar to that which preceded the great development of physical sciences; that there were centuries of background of work in the physical sciences that led to such things as the vacuum tube, television, the atomic-energy development, and it was his opinion—and I concur in this opinion which he expressed—that the biological sciences were very much in the same position of being on the verge of great discoveries that would advance us a very long way.

And in this regard I would like to mention briefly just a few of those in which progress is quite evident and which the Directors of the various institutes present to you in some detail, if you wish to hear them.

EPILEPSY

The first I will mention is the disease of epilepsy. This is a disease that has affected large numbers of people, that has made them helpless, and we see ahead of us not only relief for epilepsy, but the possibility of a cure for epilepsy by the administration of some fairly simple chemical compounds that have been discovered in the clinical center in the 6 months it has been open.

NERVE REGENERATION

Then there is the question of nerve regeneration. It used to be thought that when a nerve was severed, or the spinal cord was severed, there was no hope for it ever growing back. There is some experimental work developed by one of our scientists that indicates nerve regeneration is possible and this offers, if it pays off, to open up a new field of advance in neurology.

CANCER

The next field is cancer. We have recently learned how to diagnose cancer of the cervix at a very early stage, at a stage before it becomes invasive, and a stage at which it is possible completely to remove the growth. This looks as though we are really on the road to conquering this one type of cancer which is so important to women.

In the field of leukemia, there are new chemicals being developed. While they do not cure leukemia—and this is regarded as cancer of the blood stream—they do result in increasing the length of life of those patients and it is a hopeful development that may see some advances in the chemical treatment of leukemia. With the new supervoltage X-ray machines, it is possible to do things that were never possible before and when Dr. Heller talks about the Cancer Institute, he may mention some definite advances in this field.

In the field of heart disease, the so-called blue-baby operations have been extended to surgical procedures that correct heart defects in various conditions, that will relieve many patients who were hopelessly ill previously from deformed heart valves.

In the field of blood pressure, there are new chemicals being developed that will successfully lower high blood pressure without damaging the individual.

In the field of hardening of the arteries, we are making biochemical advances that seem to be pointing to a better understanding of this condition that affects so many old people.

In rheumatic heart disease, which was a serious disease in young people, it can now be controlled.

So I think I can say we are going forward in all fields of medical research. I cannot make any predictions about cures of these diseases, but there is steady progress being made and the future indeed looks promising.

CURRENT PROBLEMS IN CLINICAL CENTER OPERATIONS

The second point I would like to make in summary concerns some of our difficulties at the National Institutes of Health. As you know, we have opened the Clinical Center. This has been a major undertaking and certain difficulties were to be expected. A thing as complex as this is bound to have a number of problems involved. None of those problems are insuperable. They merely require a little effort to solve them. We have had some unanticipated delays. These are construction delays that have been occasioned by such things as strikes, by failure to deliver material, by the unavailability of certain materials and things of that kind that have required us to make shifts in our plans. To meet those unexpected delays, we have had to adapt ourselves to the contractors' needs.

While we opened the clinical part of the center last July 6, as of now, in the laboratory area, we have had about 60 percent of the laboratories turned over to us and about half of those were only turned over to us in the last 3 weeks. So this delay in getting the laboratory areas and having to work in them still partly under the control of the contractor has resulted in shifts in our program. The remainder of the laboratories will be available to us by early summer and the radiation wing is scheduled to be the last portion delivered to us, and that is expected to come in the early winter.

In addition, we expect to complete the skeletonized laboratory areas; that is the areas in which we only put a bench, a sink, and the bare minimum of equipment. We think we can complete the equipping of those laboratories now within our present dollars. We have held back on the recruitment of scientific personnel because of delays in the laboratory area, and this holding back in recruitment has resulted in a saving of somewhere around $700,000 to $800,000 during this year. We are rapidly picking up that recruitment, now that the laboratory areas are being turned over to us, and we expect that all of the research positions will be filled by the end of this fiscal year.

Now as we are moving into the Clinical Center areas, we are facing a growing problem of securing adequate renovation and modification of our old laboratory buildings. When we started the Clinical Center, we recognized there were various types of laboratory work and large animal research which could not be carried on in a structure like the Clinical Center with patients in it. There are certain large animals that one cannot have, naturally, in a building of that kind. And in the "1949 Stage 1 construction appropriation" language there was authority for "alteration and repairs of existing research facilities." Of this fund, the sum of $225,000 was reserved for this purpose.

As we have gone along, our needs have become greater in this field. This is due to new research requirements for such things as the chemical separation of rare or scientific substances in large quantities, the need for much more specialized instrumentation, and other techniques which have affected the nature and requirements for medical research in the past 5 years.

But in addition to all of those things, the bulk of the increased requirements are to accommodate the programs of the two new Institutes of Neurology and Arthritis which were established by Congress after the original space planning was completed. We think now it will take about $850,000, instead of the $225,000 presently

reserved, to complete these necessary modifications to the existing building, and it will take most of the next fiscal year to make those necessary space adjustments. We are studying at the present time ways in which those additional needs can be met within our present resources. And as it should be possible to do this within that framework, we would like to submit to this committee, through appropriate budgetary channels, a letter which would outline our specific proposals for financing these alterations.

Mr. BUSBEY. I am sure the committee would be very happy to receive it, Doctor.

CLINICAL CENTER OCCUPANCY

Dr. SEBRELL. The activation of the clinical center is proceeding on schedule. We have 200 beds activated, as planned for the present time. We are running approximately 80 percent occupancy. We have had as high as 163 patients. They vary from day to day a little bit, from a maximum of 163 down, maybe, to 153 or 155. You never keep them exactly the same, of course. And this is in spite of changed conditions in the Mental Health Institute, where special requirements in that Institute are such we find we cannot very well operate it at the 80 percent bed capacity.

You may remember it was an experiment in itself to put mental health research in an institution of this kind, because much of the mental health research has always been isolated in mental institutions. The very putting of it in this building was a study in itself and we find there are special requirements a little different from those for ordinary clinical research. This is to be expected, I think, and adjustments made. Even so, we are running very close to an overall 80 percent capacity according to our schedule.

Mr. BUSBEY. Thank you, Dr. Sebrell.

Your budget request for the Institutes for fiscal 1955 for all practical purposes is the same, in total, as the appropriations for 1954.

Dr. SEBRELL. That is correct, sir; it is just about the same. The total differences are very minor.

BUDGET RESERVES

Mr. BUSBEY. Doctor, have you been handicapped or hampered in any way in getting into full operation at the clinical center by financial restrictions that have been put on you by the Bureau of the Budget?

Dr. SEBRELL. No, sir; I do not believe so. We have run along pretty well on schedule. You may remember last year we had a little delay from April to June getting started in opening the center; but once we got it opened our difficulties have been, I think, almost exclusively construction delays. I think we have gone along very satisfactorily, except for these construction delays.

Mr. BUSBEY. You may recall in our report last year we commented on that situation to this effect:

> The committee is completely at a loss to understand the action of the Bureau of the Budget in prohibiting for several weeks the hiring of personnel to staff the new clinical center. The Congress has always given its wholehearted support to this project.

After that initial delay before the center was opened in July, you have been able to proceed without any handicap?

Dr. SEBRELL. Yes, sir, except for these construction difficulties that I have mentioned.

Mr. BUSBEY. Have you had any funds impounded by the Bureau of the Budget during this last year?

Dr. SEBRELL. Yes, sir; we have had some savings reserve set up by the Bureau of the Budget in the sum of $353,000.

Mr. BUSBEY. What were the reasons for impounding those funds?

Dr. SEBRELL. I mentioned to you in my summary that we had delayed recruitment of scientific personnel because of the construction delays in the laboratories, and by setting back recruitment of personnel this resulted in savings of the proposed salaries of these people who will now probably be on by the end of the fiscal year. This amount of money, $353,000, constitutes part of that figure of $700,000 to $800,000 that I mentioned as a saving this year.

Mr. BUSBEY. Have all these funds been released as of this date?

Dr. SEBRELL. No; all of those funds have not been released.

Dr. SHANNON. The thing is, Mr. Busbey, recruitment was planned as early as the first quarter of this year. With the construction delays, it was quite apparent that people who were to come on in the first quarter it would not be possible to put to work prior to the fourth quarter; consequently, $353,000 that was reserved will not be needed and we have not requested the release of those funds.

Mr. BUSBEY. But this has been due entirely to delays and unforeseen difficulties in the construction program?

Dr. SEBRELL. Yes, sir. We have not needed the money. You understand, of course, we will need those positions for the full program next year.

Mr. BUSBEY. Yes; I understand that.

CATEGORICAL VERSUS GENERAL GRANTS TO STATES

Now on page 11 of your statement, Doctor, under "Control grants," you state:

> It is becoming increasingly clear that much chronic disease which will strike millions of people can be dealt with effectively if the existence of the disease can be found early enough. Even without a full knowledge of cause, we now know more about how to halt the progress of many chronic diseases than is being fully applied. The control grants are our effort to close the gap between scientific knowledge and application of findings to patients. In this area, too, the Institute Directors will tell you specifically what the control measures are accomplishing.

What is the desirability, in your opinion, regarding the transfer of funds from categorical grants to the appropriation "Assistance to States, general"? We have had some discussion here in the committee from time to time on the advisability of such a transfer. What is your opinion on that?

Dr. SEBRELL. Mr. Chairman, this is a very difficult question, as you know.

Mr. BUSBEY. I am sure you can appreciate, if it is difficult for you, it is more difficult for the committee.

Dr. SEBRELL. There is certainly much to be said for giving the States and the local people the final say on where their money could be best expended to meet their local and State conditions, and it seemed to me, if I may speak personally, that that is a desirable thing—to put as much actual direction of the funds in the hands of

the people who are familiar with the local conditions and who are best able to spend it in the most efficient way in their localities.

Now it is my feeling that the role of the National Institutes of Health should rather be that of leading the way, initiating new programs, demonstrating where new things can be done and then transferring the programs to the States, or to the people operating the programs when our judgment indicates that it is now something that is well understood. And I do think that we need to exercise some leadership and some demonstration of the new things, to study and learn the best ways of doing things, and then turn it over for operation to the people who are concerned.

Mr. BUSBEY. Do you have that much faith in the State health departments, that you would give them a blank check and not have any requirement as to how the funds would be spent?

Dr. SEBRELL. I did not quite say "Give them a blank check." I do have this kind of faith, Mr. Chairman——

Mr. BUSBEY. It more or less amounts to that, if you are going to give them a general grant without any strings attached to it, or any designation as to how the funds are to be used. I appreciate you did not say it in so many words.

Dr. SEBRELL. I have this kind of confidence in them, Mr. Chairman. I feel if we show them the problem, so that they understand the problem, and they understand that this is the worst problem in the area and we show them what are the ways of combating this problem, I have the kind of confidence in them that they will spend that money wisely as they see their local need and see the problem.

Mr. BUSBEY. I am frank to say I have no definite opinion on the matter, but it is a problem that this committee is going to be confronted with. The only way we can arrive at the best decision, in my opinion, is to get the testimony from you men that are handling this program at the Federal level and from representatives of the State health departments who are operating the programs at the local level.

What would be wrong with the States making a report to you in regard to the programs which they think are the highest priority and for which they need money, and then you make categorical grants accordingly? Of course what would be of high priority in one State would not necessarily be for another State.

Dr. SEBRELL. That is right.

Mr. BUSBEY. You would have to have some kind of a budget from them in order even to make an allotment out of Assistance to States, General, funds.

Dr. SEBRELL. That is right. I feel, sir, that if we can demonstrate to them the way to do things and demonstrate the problem, that only in a most general way do we need to require the detailed reporting from the people handling the health problems at home. I believe we can count on these people to tackle their most serious problems once they are demonstrated to them, and once they know how to attack them. And only within the most general framework, do I think we need then to go into the details of the operation.

I have had some experience for a number of years in dealing with States in some other field. During the war I was with the War Food Administration and I had a somewhat similar problem of nutrition education and found the food habits vary all over the United States, and it was a problem of how we would recommend a wartime diet that

would fit everybody. It was quite obvious the way to do it was to lay down general principles and then let the details go down to the people who were dealing with the details. And the situation in one State or one area of the country is quite different from another and it is only by general guidelines that you can get the most effective and efficient program for a particular locality.

COMPARISON OF CONTROL GRANTS AND HOSPITAL CONSTRUCTION GRANTS

Mr. BUSBEY. It does seem to me there is inconsistency in wanting to handle this program through Assistance to States, General, rather than categorical grants, when only a couple of weeks ago the House passed legislation requested by the Department of Health, Education, and Welfare spelling out and setting up categorical grants for the hospital construction program.

As I said, I have no preconceived ideas of just how this should be handled; but the Department asks for categorical grants in one instance and then in the other instance they say, "Categorical grants are not so good; we would rather have them as general grants and let the States make the decision."

Mr. LARMON. May I say that in the instance you are referring to, I think the hospital construction grants, it was assumed those categories were comparatively new categories and it was done to emphasize those particular things in the new program. In the case of legislation of the Department in regard to category grants in Public Health, in grants to States it was assumed that was an old program that had been carried on for a very considerable time.

I think that was the distinction in the mind of the Department.

DIFFICULTIES DUE TO CATEGORICAL GRANT PROCEDURE

Mr. BUSBEY. Has the program in the States been hampered in any way by having this money appropriated categorically rather than through Assistance to States, General?

Dr. SEBRELL. That would be difficult for me to answer.

Dr. SHANNON. I can give you one answer. Some State health departments have complained that the distribution of funds formula in category grants does not necessarily represent the distribution of their needs for aid, and to that extent, I think it gives an answer. I think Dr. Van Slyke might give a better answer than either Dr. Sebrell or myself.

Mr. BUSBEY. We will be glad to hear from Dr. Van Slyke. I was not trying to pin any one individual down. I am merely trying to get information and advice for the benefit of the committee.

Dr. SEBRELL. Dr. Van Slyke might be able to say something on this point, since he is a little closer to it.

Dr. VAN SLYKE. I think the real answer is that these grant programs go to work in the local community and when you get down that far it is awfully hard to say what are the necessary activities that the local public health authorities shall support. In the case of cancer, heart, mental health, diabetes, arthritis, and so forth, which are small in a local health unit, it is hard to prescribe the use of those funds. And I think that is the reason the State health commissioners, the officers I have talked to, have felt it was administratively much more

difficult to handle categorical funds and follow them through to their end use; that they could do the job more efficiently and cheaper in terms of economy if they had general funds to support these activities. At the State level, of course, there are divisions of communicable disease, mental health, cancer, control of heart disease, and so forth, and here it is easier to audit funds appropriated on a category basis.

I think Mr. Larmon has spelled out something that is quite important; that is, that these programs have been going for a long time; that there is a pattern of action; that there is an understanding of the needs in the field and, as such, by putting them into general grants—and this is only my interpretation of what the State health people feel—by putting them into general grants, they can do the job more effectively.

Dr. SEBRELL. This appropriation does not abolish categorical grants. We still have them in heart, cancer, and mental health.

Dr. DEARING. As Dr. Sebrell says, we do have in this budget which is before you some levels of funds for the categories of mental health, heart disease, and cancer-control grants that obtain in the current fiscal year. So there is no transfer to "Assistance to States, general," this year.

However, as Mr. Larmon indicated, the legislation to which you have referred, which the Department is recommending regarding the modification of grants for the next year after the one for which this budget is prepared, would in effect do just what you have suggested in your question to Dr. Sebrell, namely, abolish the earmarking of the categories under the statute, for the seven different categories we have at the present time. We would then require the States to submit plans for the use of the money in all of the categories on the basis of which they would receive grants. So that it would move in the direction you have suggested, that the States submit their proposals which would be reviewed and eventually have to be approved before the money could be granted.

Mr. BUSBEY. We had quite a discussion on this the other day and, frankly, I wish I was satisfied we knew the answer, but I am not. At the risk of making myself almost unbearable to the committee, I have emphasized so many times that I am such a died-in-the-wool States' righter that I hate to keep bringing it up; but to me, whether these programs are financed from Assistance to States, General, or from categorical grants, it is a subsidy to the States and I think the States ought to be assuming a little more of their financial responsibility in the field of public health. That is my opinion and I am always willing to give everybody I come in contact with a chance to correct my thinking on it if I am wrong.

Mr. FERNANDEZ. Well it is called grants, subsidies and contributions, in the budget tables. You cannot get away from it.

Mr. BUSBEY. Thank you, Mr. Fernandez.

INTEGRATION OF INSTITUTES' WORK IN CLINICAL CENTER

Now on page 15 of the statement, under "D, Institute-Clinical Center integration and flexibility" you say:

> Another problem on which we continue to work is the integration of seven separate Institutes in a single building. This involves a delicate compromise between centralization of services that can be most economically and most effectively performed by a single Clinical Center organization, and retention in the

Institutes of decisions, particularly on the research side, that must be left to the individual programs. This is an internal management problem that we are settling ourselves.

In what way is that being settled, Doctor?

Dr. SEBRELL. Well there are a number of management devices that are being used. Very largely, in principle, it has to be settled by personalities, by cooperation. We try by consolidating our seven Institute Directors into a homogeneous group, to get them away from isolated thinking about their own problem which requires most of their time, and get them to give a little thought to the whole problem of medical research. This leads to further interchanges down through the staff to where men who are working on a problem, say, in cancer see the men working on the problem in the Arthritis Institute, and they would get together and work out a joint problem.

This has grown since we have had the Clinical Center opened and we are doing more and more interchange of ideas and cooperative work across the Institutes. Just because a patient may be a cancer patient in the Cancer Institute does not mean he may not be available for information or for study in connection with some other condition that may be over in another Institute. For example, just to cite one recent thing, we have in the Arthritis Institute a case of arthritis, a very serious case of arthritis in a fairly young woman that had been completely intractable to all sorts of treatment. The Mental Health Institute was called in and after a few sessions with the Mental Health Institute, this woman became much better than she had been for many years, so much so that she was able to get out of the wheelchair where she had been a hopeless cripple, and was able to walk around.

This kind of thing leads to further integration and it is done by persuasion, by doing as many things jointly as we can to bring the people into contact with each other, so that they exchange ideas, exchange services, utilize equipment to the utmost and, in essence, make some sort of a centralized place out of seven widely varying interests.

ADMINISTRATIVE ORGANIZATION IN INSTITUTES AND CLINICAL CENTER

Mr. BUSBEY. As I understand that, Doctor, you have an administrative organization for the Clinical Center and have another administrative organization for the National Institutes of Health. Is that correct?

Dr. SEBRELL. Yes, sir.

Mr. BUSBEY. Under this idea of closer integration you have expressed and which has been expressed by the Secretary, Mrs. Hobby, would not it be a more economical and more efficient operation if we had one administrative organization rather than duplicating administrative setups?

Dr. SEBRELL. Well, I do not think this is a duplicating administrative setup. This is a complicated administrative affair, of course, because of the very nature of it.

Mr. BUSBEY. I appreciate that; that is why I was trying to explore it to see if we could not simplify it a little bit.

Dr. SEBRELL. The Clinical Center administration, you see, is not duplicating. It serves to care for all of the patients in the place. Now we have to have this in order that there are standard practices

throughout the place; that we do not have 7 different ways of administering things, for the 7 Institutes, but that we have 1 patient care administration for the 7 Institutes. That is the way to simplify it and avoid duplication. So, as far as we can, we have 1 administrative unit to serve all 7 institutes, 1 thing to serve all patients. And the apparent duplication arises, when you say 1 administrative unit serves all patients, because the patients are for study by all the 7 institutes—each with separate patients.

And inherent in this is our basic principle of operation, that the great function the Clinical Center and NIH can perform is to bring together laboratory research and clinical research. We have those things so intermingled that I think at no other place in the world is it possible for physicists, biochemists, entomologists and all those people to work with laboratory materials alongside clinicians working with patients. The whole basic principle of the place is to have people able to shift from the laboratory to the clinic, from the clinic to animals and those shifts are from day to day and people change from one place to another. This is possible because we have the facility where it is not geographically broken up into little parts. And this very flexibility of shifting is a thing that is going to enable us to follow research leads as they develop and push one way, and then push another way as we see progress.

Mr. BUSBEY. I appreciate that; but, if you will permit me to get back to the administrative part of that, how much does the Clinical Center have in relation to the National Institutes of Health?

Dr. SHANNON. I think Dr. Sebrell and you are using the word "administration" in different ways. Purely in terms of administration Mr. Henschel is executive officer for the Clinical Center, and at the same time is assistant to and responsible to Mr. Siepert, the executive officer of NIH. The functions that Mr. Henschel supervises specifically are those functions that are clearly related to furnishing efficient patient care services or clearly related to the Clinical Center building staff.

I have in mind such things as housekeeping and plant management services, and such things as patient related functions which are administered as part of NIH. As such, he has no autonomy except so far as he acts for his superior officer, Mr. Siepert.

Does that clarify it?

Mr. BUSBEY. Yes. I was just wondering how close the administration of the Clinical Center was related to the rest of NIH.

Dr. SHANNON. It is a part of NIH and in certain professional matters we operate the Clinical Center as though it was an Institute serving a broad general function.

Dr. SEBRELL. The Director of the Clinical Center has my delegated authority for the care of patients. He reports directly to me, as do the seven Institute Directors, and Dr. Shannon has explained the executive officer's relationship to Mr. Siepert, who is the executive officer for the whole place.

DISCUSSION OF SINGLE APPROPRIATION FOR DIRECT OPERATION OF NIH

Mr. BUSBEY. Would bookkeeping and management be simplified if a single appropriation were made for the total direct operations of NIH, leaving separate appropriations for each category to cover grants?

Dr. SEBRELL. I do not believe so. I think perhaps it would be more complicated, because this would involve a very serious allocation problem.

Dr. SHANNON. What Dr. Sebrell means to emphasize is that you would put to him the responsibility that presently is carried by this committee in deciding on the program emphasis there should be in the total program of NIH, because Dr. Sebrell, responsible for a single appropriation covering the activities of the seven Institutes, would be made the arbiter of the emphasis. And I believe Dr. Sebrell means that would be a very uncomfortable position for one man to be in.

ALLOCATION OF COSTS

Mr. BUDGE. I am wondering just why that would be true, especially in view of the previous testimony of Dr. Sebrell that patients are treated who have more than one illness which is being studied at the time. That must be somewhat of a problem in allocation, too, is it not?

Dr. SHANNON. No, sir. This was undertaken as a result of an arrangement setting up cooperative programs. I can mention some in the field of rheumatic fever in which three Institutes are interested; the Microbiological Institute from the standpoint of the relationship of streptococcal diseases to rheumatic fever, the Arthritis Institute, which is interested in arthritis, which is one consequence of rheumatic fever, and the Heart Institute, which is interested both in the cardiac possibility and the continuation of surgical relief of cardiac heart disease.

Mr. BUDGE. How do you determine the percentage which shall be charged to each one of the funds in a situation like that?

Dr. SHANNON. The funds apply naturally in proportion to the interest of the Institutes.

Mr. BUDGE. That must be a difficult allocation, is it not?

Dr. SHANNON. That is not an allocation; it is a scientific judgment on the part of the Institute, as to what proportion of their funds shall be applied to a given study.

Dr. SEBRELL. We can do this in a general way without carrying it down to charging each little item one way or the other way. If the patient, say, is admitted as a cancer patient and the primary interest is cancer, but the patient also has a heart disease in which the Heart Institute wants to engage in some study, we do not have any difficulty in allocating it out on a simple bed activation formula. We do not try to charge each syringe that is needed against the Heart Institute in this case, or any of the contents one way or the other, because the injection was used for a heart disease, instead of cancer. This would involve difficulties beyond bookkeeping.

The essential difference here, I think, is this. As Dr. Shannon indicated, although I could do it, I would not like to do it—I would hate to be in the position of having to decide the relative emphasis of the heart program versus the cancer program, versus the neurology program, which at the present time is done by this committee, and by the Congress. And I personally prefer to see the Congress indicate the relative emphasis they want put on these programs, rather than to hand me a lump sum of money and say "Here, you do it."

Mr. BUDGE. I can quite understand that, but that is what you are doing now, is it not?

Dr. SEBRELL. No, sir.

Mr. BUDGE. When you have a triple interest such as you were talking about, where 3 different institutes are studying an individual who has 3 separate ailments, you are to quite an extent allocating funds there, are you not?

Dr. SHANNON. To go back to this individual with rheumatic fever, that is of common interest to three Institutes, but initially, relative to the particular study, it is determined which Institute has the primary interest. In the case of rheumatic fever, it happens to be the Institute of Arthritis and Metabolic Diseases. This Institute will have that patient there, regardless of the other Institutes in the cooperative setup, we agree upon the extent of the additional interest that is held by the Microbiological Institute, and the additional interest that is held by the Heart Institute, and they contribute to that in terms of the time of their professional and technical personnel, over and above what is contributed by the Arthritis Institute. There actually is no bookkeeping involved in a thing like that, because the patient would be there as a responsibility of the Arthritis Institute regardless of the interest of these other Institutes.

As a matter of principle, we encourage and press for collaboration, because that is the only way the resources of the National Institutes of Health can be brought to bear on the whole problem.

Mr. BUDGE. I would hope you would do that.

Dr. SHANNON. That is the general program.

Mr. FERNANDEZ. When speaking of allocations and who should determine the allocations, are you speaking about allocations to the various Institutes in their direct research, or are you including also allocations to the States?

Dr. SHANNON. We are talking about the direct operation at Bethesda, insofar as it involves patients in the new clinical facilities.

Mr. FERNANDEZ. In the last answer you said you could allocate; but I thought the chairman asked whether it would be wise to appropriate all your funds in one lump sum and then let you allocate what should be placed in one Institute and what in another, and you indicated that allocation would be very difficult.

Dr. SEBRELL. Roughly, Mr. Fernandez, initially we make the proposal and this budget represents our best judgment of the way the funds should be distributed among the various Institutes; but we do not make the final decision. In other words, the final decision is made by the Congress. This represents our best judgment as to how these funds can be used most effectively.

ALLOCATION OF OVERALL OPERATING EXPENSES

Mr. BUDGE. If I might ask 1 more question: Doctor, with specific reference to your budget request of $4,675,000 for "Operating expenses, National Institutes of Health," how do you break that down as between the various Institutes?

Dr. SHANNON. We have a series of formulas which we have worked out over the years that attempt to charge each Institute in proportion to the services it requests. Administration comes from the direct operation funds of all the Institutes. The NIH centralized services are

broken down into a series of items—laboratory research services, and so forth. Administration as such is charged in proportion to the ratio of the funds of the given Institute of the funds available for all of the Institutes.

Mr. BUDGE. Of course that would hardly follow, would it? For instance, some of those programs certainly need much more laboratory facilities than others do.

Dr. SHANNON. I do not see how that bears on the administration item per se.

Mr. BUDGE. I understood you to say your administrative funds were divided up in proportion to the amount of the appropriation to individual Institutes.

Dr. SEBRELL. According to their direct operation funds, that is right.

Dr. SHANNON. That is just direct operation funds.

Dr. SEBRELL. But by administration, that does not include such things as laboratory research services, or does not include supply services, because some of those other things are broken up on a different formula.

ALLOCATION OF LABORATORY EXPENSES

Mr. BUDGE. Describe that formula with regard to laboratory and supplies.

Dr. SEBRELL. Under laboratory research services, each Institute shares this cost in direct ratio to the total number of laboratory workers stationed at Bethesda, because it is the number of research people that have a gross effect on the workload of laboratory research services; each Institute has a number of laboratory workers.

Mr. HARLOW. Might I interrupt to correct what seems to me to have been a misunderstanding. This $4,675,000 we are requesting here is not administration; $4,124,000 of it is grants and $551,000 is for review and approval of the research and training grants of all of the Institutes.

What the gentlemen have been discussing is a reimbursable item which is dealt with on page 11–2 of our justification, and does not affect this $4,675,000 in any respect.

Mr. BUDGE. I see that this is described in this statement prepared by the Public Health Service, and I ask unanimous consent that it be placed in the record at this point.

Mr. BUSBEY. Without objection, it is so ordered.

(The matter above referred to is as follows:)

STATEMENT OF DISTRIBUTION OF REIMBURSEMENTS TO THE APPROPRIATION: "OPERATING EXPENSES, NATIONAL INSTITUTES OF HEALTH"

The reimbursements from the seven Institutes are determined as follows:

Administration.—Each Institute shares these costs in direct ratio to its portion of "direct operations" funds for all Institutes.

Research services

Supply services.—Each Institute shares these costs in direct ratio to its portion of "direct operations" funds for all Institutes.

Research plant and equipment services.—Each Institute shares these costs in direct ratio to its portion of total personnel of all Institutes stationed at Bethesda.

Laboratory research services.—Each Institute shares these costs in direct ratio to its portion of total laboratory workers of all Institutes stationed at Bethesda.

Scientific report services.—Each Institute shares these costs in direct ratio to its portion of total direct research funds of all Institutes.

Clinical Center services to laboratory and patient areas.—Patient care: (Direct care of research patients and part of clinical and related services). Each Institute (except Dental and Mental Health) shares these costs in direct ratio to its portion of activated bed-days. Dental has no bed allocation. Mental Health shares patient care costs on the basis of a weighted average taking into account the higher costs of servicing mental patients. Clinical and related services: The costs attributable to these areas for Housekeeping Section, and operation of plant and equipment are distributed in ratio to total Institute personnel stationed at Bethesda; for laundry, total Institute laboratory workers stationed at Bethesda; and for service operations, total direct research funds of all Institutes.

The application of these criteria results in the following distribution of 1955 reimbursements:

	Percentage	Amount
Arthritis and metabolic disease activities	16	$1,517,100
Microbiology activities	14	1,240,000
Neurology and blindness activities	7	626,950
Salaries, expenses, and grants, National Cancer Institute	26	2,435,950
Mental health activities	18	1,655,400
Salaries, expenses, and grants, National Heart Institute	17	1,522,500
Dental Health Activities	2	193,100
Total	100	9,191,000

ADDITIONAL INFORMATION RE SINGLE APPROPRIATION AND ALLOCATION OF FUNDS

(The following information was submitted after the hearings:)

The previous testimony relates to NIH attitude (1) toward a single appropriation and (2) toward a separate appropriation for the Clinical Center and other central service activities. These are discussed separately below:

(*1*) *Single appropriation*

The House Appropriations Subcommittee has always expressed its interest in having separate appropriations for the various Institutes. The last expression of this was in the report on the 1953 appropriation bill which stated that in 1954 we should set forth neurology and arthritis as separate appropriation items. It was our belief that the Congress wanted the Institutes activities set forth separately to maintain policy control over the emphasis to be given to various programs and to focus congressional and public attention on needs for research in these areas. NIH feels that the wisdom of separate appropriations has been demonstrated by the increased public interest and support to private foundations interested in the same fields. Separate appropriations indicate that Congress has a special interest in particular diseases; also encourages a unique pattern of effective cooperation between the Federal Government and these private groups.

A single appropriation (without limitations) would simplify some technical budgeting and accounting problems. Insofar as the research operations themselves, we believe that the disadvantages outlined above and in external operations would more than offset the benefits to be gained in any easier internal administration.

(*2*) *Separate appropriation for Clinical Center and all other central services*

These activities are essential components of the direct research programs of the Institutes. They are carried on centrally because they are common needs of all Institutes. Duplication of personnel and equipment are avoided by performing the work on a centralized basis. This means we have 1 patient care organization instead of 7 separate ones for the Institutes, and 1 instrument shop, 1 animal colony, 1 library, etc., instead of several. Some of the central services, particularly those related to plant operation, could not be carried on in any other way.

Separate appropriations for central services would significantly understate the funds devoted to the categorical appropriations. We believe we would be asked to reassemble the data in the budget to show the total support to the various disease categories. When arthritis, neurology and microbiology were contained in the "Operating expenses, National Institutes of Health" appropriation, we were continually asked by the Congress and other interested parties to allocate

Clinical Center and central service costs to the respective Institute programs. This seemed another reason behind the request of the subcommittee to set these items out as separate appropriation items.

This appropriation pattern would also seriously hamper the approach to a given research problem by an Institute by limiting funds to be spent centrally. Once these funds were committed, it would not be possible to open extra beds in the Center, make a greater investment in animal production or take similar action to solve a research problem of a particular Institute even though funds were available for the "Institute account" to pay the cost. This method of appropriating funds would limit the method of research to be followed as well as the disease category to be studied. We feel that the ability of Institutes to use resources as research needs dictate within general policies and fund limitations set by Congress, is an important aspect of the technique of research administration.

Under the present plan the Clinical Center and other central service costs are budgeted as a unit so shown in congressional justification material and the costs to be borne by each Institute set forth. The shares are determined by formula which are reexamined yearly to see if they are equitable. The Institutes are billed on this basis, and increases in reimbursements for expanded work to be done centrally are made only after careful study to be sure the Institute pays its fair share.

We believe this method of rate charging for services in accordance with the way funds are budgeted is reasonable, that it carries out the intent of Congress and without a large investment in detailed cost accounting, and that it still provides the opportunity to do an essential part of work related to the work of an Institute centrally if that is the most economical method of handling a problem.

INCREASE IN ALLOCATION FOR INDIRECT PROJECT COSTS

Mr. BUSBEY. Dr. Sebrell, on page 17 of your statement, starting with the second paragraph, I quote:

> Beginning in fiscal year 1955, we hope to make an administrative adjustment of minor importance in total budgetary terms, but of substantial importance to scientists and the institutions with which they are affiliated. This change is an increase from a maximum of 8 percent to a maximum of 15 percent in the proportion of a research grant which will be allowed for the indirect cost of research undertaken by grantees. It has become increasingly clear that the lower allowance now in effect falls far short of meeting the costs which schools must meet when one of their staff members receives a grant from us.

How much money is involved in increasing the percentage from 8 to 15 percent?

Dr. SEBRELL. Dr. Van Slyke who has charge of this program can, I think, perhaps answer this in more detail than I can.

Dr. VAN SLYKE. This will cause an increase of a maximum of $1.5 million in the allowance for schools by stepping it up from 8 percent to a 15 percent maximum.

Mr. BUSBEY. Have any schools refused to let their staff members accept your grants because the allowance for indirect cost was only 8 percent?

Dr. VAN SLYKE. We have been unable to answer that question positively, because unless the school allowed application to be made to us, we do not know those that are turned down. However, in our discussion with the heads of schools and universities throughout the country, we are informed without exception that the school must partially support research grants, on which the overhead costs are more than the 8 percent provides. This, of course, is a disservice to the institution in regard to its educational responsibility, because use of funds to support research projects leaves less funds to carry out their national educational responsibility.

The overhead allowance of 15 percent maximum was arrived at after discussions substantially on a national basis with people con-

cerned in that area, and represents the same conclusion that the National Science Foundation arrived at when they allowed 15 percent overhead from their funds. Certain research grant contracts that other departments of the Government provide funds for, allow overhead considerably exceeding that—in other words, they provide for the total indirect cost. We feel, however, that the 15-percent maximum is the most equitable arrangement that can be made, even though at that figure the schools will have to carry part of the load if they accept additional research grant funds.

Mr. BUSBEY. Do not the schools feel that they benefit by having their staff take part in research?

Dr. VAN SLYKE. Yes, sir, the schools very definitely do benefit, and with a strong research program goes better teaching. So they benefit in that way. But, again, because of their financial conditions, there is only a certain amount of additional responsibility that they can carry. In other words, there is only a certain amount of their educational funds that they can sacrifice for research. And of course as the chairman of this committee well remarked, research results are not only good for the school, but are good for everybody in this country. The results of research apply to everybody. So it would be hardly fair to have State X provide funds which are of national importance.

Mr. BUSBEY. Doctor, what would happen if this was adjusted the other way and the schools were asked to bear all of the indirect costs?

Dr. VAN SLYKE. I cannot document my answer, but I am sure a lot of the schools would be unable to accept research grants since they would not be in a financial position to do so.

Dr. SHANNON. One might say that would very drastically curtail the scientific potential of the country. I think that would be the most serious consequence.

TRANSFER OF BUDGET FOR PREDOCTORAL FELLOWSHIPS TO NATIONAL SCIENCE FOUNDATION

Mr. BUSBEY. Now was it not about 2 years ago that your appropriation was reduced $390,000 because of the shifting of the budget for predoctoral fellowships to the National Science Foundation?

Dr. SEBRELL. Yes, sir; that was our predoctorate fellowship program, and our $390,000 was transferred a year ago to the National Science Foundation.

Mr. BUSBEY. Now how many predoctoral fellowships was that intended to cover?

Dr. VAN SLYKE. Approximately 200.

Dr. SEBRELL. About 200.

Mr. BUSBEY. Do you have any statistics or figures that would show how many predoctoral fellowships in the medical field are being maintained by the National Science Foundation?

Dr. VAN SLYKE. In the last report we had from the National Science Foundation, they have increased their predoctoral fellowships by approximately 17 over the year before. I will point out, though, it is my understanding that the $390,000 for predoctoral fellowships which was taken from our budget by the Bureau of the Budget was not appropriated to the National Science Foundation for general research fellowships of the National Science Foundation. So that the net result was we have approximately 140 less predoctoral fellows in support this year than we had the year before.

Dr. SEBRELL. That is, in the science fields that are related to disease. There has been a decrease of around 140 or 145 predoctoral fellows in these various categories of diseases.

The reason for this is very largely the policy of the National Science Foundation. It does not emphasize life sciences; the National Science Foundation provides an equal opportunity for all predoctoral applicants, regardless of what scientific field they are in. I do not by any means mean to criticize or recommend any reduction in the National Science Foundation funds, but it is regrettable that in their need for taking care of all needs of science we lose about 145 fellows in medical science.

Mr. BUSBEY. I can assure you I was as much concerned about this as you, and it is something I think this committee should take note of, especially when I look at this release of the National Science Foundation of March 17 of this year and find that the field of zoology outranks medical science by over 3 to 1.

How did they happen to transfer this fund of $390,000 over to the National Science Foundation? What is the history of that transfer?

Dr. SEBRELL. I believe this stems from the desire—and I am merely expressing an opinion here; I do not believe I can document this—I think this springs from a desire to concentrate all of the predoctoral scientific fellowship programs under the National Science Foundation, which I would say, of course, is the natural thing to do.

Mr. BUSBEY. At first blush I would agree with that.

Dr. SEBRELL. Now this seems like a good thing to do, but in doing this the defect turns up that in the medical sciences we have a special need, and when you throw all of them into a pot with all of the fields of science, you naturally have to have a method of selection. And the end result is we have a decrease in the men coming into this highly needed and desirable field.

I think this points out that there is something to be gained in science by having a diversity of support, not only for research grants of various kinds, but for scientific training as well; because the ends are very diverse and it may not be wise to concentrate all support for a given level of scientific training, such as predoctoral fellows, into a single agency. Diversity of support would give opportunity for more than one branch to the whole field of scientific training. And the importance of this was brought out by the fact that more than 80 percent, almost 90 percent, of those predoctoral fellows continued in the medical research field, and this results in hampering the program beyond any question.

Mr. BUSBEY. Of course you appreciate this subcommittee does not have a chance to interrogate the members of the National Science Foundation on their appropriation; but this, I think, is a very serious situation, especially when there are only 10 fellows allotted to medical science out of 657.

ACTION NEEDED TO SHIFT PREDOCTORATE FELLOWSHIPS TO PHS

Now help me out in my thinking a little bit on this. What steps would have to be taken in order to get this changed back so that medical fellowships would be awarded by you instead of the National Science Foundation?

Dr. SEBRELL. I think Dr. Van Slyke could perhaps make a suggestion to you and recommendation in that regard.

Dr. VAN SLYKE. In the broad field of health, medical, and biological sciences, I do not believe the permission should be taken away from the National Science Foundation to make these fellowship awards. I think the National Science Foundation is doing a good job in the very broad field.

On the other hand, in the field of health, medical, and biological science, we face the problem of going down into the earlier time of a man's or woman's life to recruit them for a career of research investigation in the medical field. This area of medical and biological science is a long time training area. They do not come to fruition nearly as quickly as those who take up physics or go into other natural sciences. With the authority to award predoctoral fellowships, we can then lay out a course of development of those people. As you know, this committee had over the years given us authority for pre- and post-doctoral fellowship awards. Under the predoctoral program we could reach back into the earliest time and pick up people and lay out a course of study and action for them which will produce increased numbers of competent researchers in the medical field.

We have found this predoctoral program very valuable in the past, and when you, Mr. Chairman, asked the question about it last year we were hopeful that recruitment of people in this area would go on unabated.

Eventually, the National Science Foundation may have enough funds to provide for that, but the immediacy of the problem and the failure to recruit new and competent people into the medical and biological area at an earlier time, is most serious.

Mr. BUSBEY. I agree with you wholeheartedly, and I am just trying to explore what this committee can do about it.

Dr. VAN SLYKE. Mr. Chairman, we feel that this is a very valuable program, and we did not ask for additional funds to implement it, but because of its priority and importance we would take some of the funds within the present budget before you, and reimplement this program in a modest way. That is, if it is the wish of the committee.

Mr. BUSBEY. What methods or means do you have to emphasize the necessity of this program to the National Scientific Foundation to get them to really give proper consideration and evaluation to this program, in comparison to the other fellowships that they handle?

Dr. VAN SLYKE. Mr. Chairman, we are in contact with the National Science Foundation, as I said before, and I think they are doing a very good job.

First, their field of interest is so broad that we cannot ask them to give special preferential treatment in the medical and biological area, because there are these other areas of tremendous importance.

I am sure that every one of the predoctorate fellowships given in the area of chemistry that you spoke about are extremely important to the welfare of the country.

Mr. BUSBEY. Frankly, I am at a loss to know why they should have control of these predoctorate fellowships in the medical sciences. I, personally, think it belongs in the National Institutes of Health, and I would like to do something about it.

Dr. SEBRELL. I believe that all we need, Mr. Chairman, is authority and instructions from this committee.

You see, one of the difficulties of the Science Foundation, as Dr. Van Slyke has pointed out, is that they are set up for basic science,

and our law also involves some of the basic sciences. The Foundation must cover all fields of basic science very properly, and they have to get the most they can out of their funds across all fields of science.

So, we are not in a position to ask for special treatment, in competition with all basic sciences in that Foundation.

Mr. BUSBEY. No; but you have given up $390,000 for this purpose, and it is not being used for this purpose under present requirements.

You said you probably could handle the situation if the committee gave you authority and instructions. Do you not have authority now, if the committee would just implement that with instructions?

Dr. SEBRELL. We have authority, but we need instructions.

Dr. SHANNON. Mr. Chairman, to clear this up, might I recall that as you have stated, the $390,000 was transferred in the President's budget 1 or 2 years ago from the Public Health Service to the National Science Foundation, for the explicit purpose of taking on this predoctorate program, as Dr. Van Slyke says, with the idea of putting it all in one place.

The money was not appropriated, but the responsibility for administering the predoctorate program was transferred to the Foundation last year, and therefore, we do not have it in the bill at the present time, based upon that instruction.

Mr. BUSBEY. Well, I am sure the committee will discuss it very thoroughly when we go into executive session to mark up the bill.

TEACHING GRANTS

On page 18 you deal with special grants for teaching and training. In the Truman budget for 1954, you had $3,598,000 for teaching grants. This was cut to $2,648,000 in the Eisenhower budget, and the House report stated that it was the committee's feeling that less emphasis should be put on this type of activity. However, in the face of that, you are spending $4,983,000 on teaching grants, which is not only more than the revised budget figure, but almost 40 percent more than the Truman budget figure.

What is the explanation of that?

Dr. VAN SLYKE. Mr. Chairman, the explanation for that is that the heart disease teaching grants to the medical schools to enable them to improve their teaching of cardiovascular diseases was raised to an average level of $25,000 per school the same as the cancer teaching grants, and in terms of percentages, the teaching grants in 1953 were a little over 12.4 percent. For the present year 1954 it is 13.4 percent.

In the 1955 budget before you, the teaching and training grants—and they should be lumped together, because they concern the same problem—are down to 12 percent of the budget.

So, there has been a percentage decrease.

Mr. BUSBEY. Would you not agree that that was a direct violation of the thinking of the committee in this matter, by going over the figures so much?

Dr. VAN SLYKE. I do not have the committee's report before me, Mr. Chairman, but as I recall it, it referred to percentage decreases, and we have, percentagewise, decreased the funds for these purposes.

Mr. BUSBEY. The committee report stated this:

> The committee, in general, agrees with the Bureau of the Budget and the Department in their contention that in revising the budget greater emphasis should be placed on research activities, and less on the related activities, especially grants to States for detection, diagnosis and other similar control activities.

Dr. VAN SLYKE. Mr. Chairman, in that regard we did reduce from the 1953 level, where the State grants were 12.9 percent.

We did reduce State grants to 8 percent in the current year, and the budget before you for next year is also 8 percent. So, there has been a 4.9 percent total percentage decrease, or, roughly, we now have about two-thirds of the amount of money that previously went into State grants.

Mr. HARLOW. Perhaps, I can help a little on that, Mr. Chairman: As I recall, the Senate added substantial amounts to the House figures, and we were requested to submit a breakdown, showing how we would propose to spend the amounts of money, based on the Senate bill.

The conference report, as I recall, came out very much closer to the Senate figures than it did in the House, which we felt took the curse off the House report.

Mr. BUDGE. Would the Chairman yield?

Mr. BUSBEY. Yes, sir.

Mr. BUDGE. I think this is quite interesting. Apparently, you want the Congress to tell you how much should be spent in each separate field, but when the Congress says—at least, this side of the Congress—that we would prefer having the money spent on research rather than on the related activities, you go ahead and allocate the funds to suit yourselves anyway.

Mr. BUSBEY. The Senate report says this:

> The committee recommends a total of $72,153,000, an increase of $10,566,800, all of which is specifically allowed for grants for research and training over the House allowance, and $15,813,000 over the revised estimates, an increase of 28 percent.

They specifically stated that it was for research and training.

DIFFERENCE BETWEEN TEACHING AND TRAINING GRANTS

Mr. HARLOW. Isn't that what we are talking about? That is, training grants?

Mr. BUSBEY. No; teaching grants.

Mr. HARLOW. They are the same.

Mr. BUSBEY. You say they are the same?

Mr. HARLOW. They are synonymous; yes, sir; in our view.

Mr. BUSBEY. This table, which was prepared by NIH, shows teaching grants, $4,983,000, and training grants, $4,576,000. You definitely have two items. What is the difference between the two?

Dr. VAN SLYKE. Mr. Chairman, the teaching grants are grants made to medical schools to enable them to improve their teaching of the subject at hand—in the cardiovascular disease field and cancer, and the training grants under mental health and neurology—the $4,576,000—are also grants made to medical schools to enable them to improve their programs. The training grant has two functions: to enable the schools to improve their teaching of psychiatry and psy-

chology and related subjects, and also within that $4,576,000 are the stipends for the people who are taking this training.

The correlary fund in the budget is the training stipends which are made directly by us to the trainee in the cases of cancer and heart. In mental health they make a single grant to the school, both for the school purpose of improving their department of psychiatry and providing the stipend for the trainees taking this mental health training.

Mr. BUSBEY. I suppose it is going to get down to the point where the committee is going to have to start writing definitions.

Dr. VAN SLYKE. Well, this is an old friend of the committee's, Mr. Chairman. It has been here for several years.

METHOD OF FINANCING CENTRALIZED SERVICES

Mr. BUDGE. I would like to ask a question, as long as we are talking about making these appropriations for specific purposes. I note that the various Institutes' appropriations are depleted to the extent of almost $9.5 million for the so-called centralized services of the National Institutes of Health. Why should not the Congress be called upon to make a direct appropriation for this purpose, rather than having the funds taken away from the various Institutes by some formula set up by the National Institutes of Health? Why do you not ask us to make that appropriation direct, and explicit, the way you want us to make the others?

Dr. SHANNON. Could I answer that, Mr. Budge?

Mr. BUDGE. Yes, sir.

Dr. SHANNON. This figure is our best estimate now of what can be put in to centralized service for greatest efficiency. This figure will change from year to year, depending upon our experience under the present type of appropriation. If we find that the centralized service is not functioning efficiently and should be decentralized to the Institute, that is possible.

Mr. BUDGE. Why should you not make the justification before this committee for that $9.5 million item the same as you give the justification for each of the various Institutes' appropriation?

Why do you want to use your judgment on this item and not in the rest of the items?

Dr. SHANNON. This is purely a technical item. This does not involve policy. This involves our best judgment of our professional men as to how a job can be done most effectively, and most economically in the research area.

Dr. SEBRELL. Mr. Budge, this is justified in the budget under this appropriation "Operating expenses, NIH" in detail. It is presented to the committee here under the NIH General heading.

Mr. BUDGE. You take from each one of them funds to make up this total of $9.5 million; do you not?

Dr. SEBRELL. Yes; that is right, but the justification for it is all before you here.

Mr. BUDGE. Yes, but why is not that item presented just like each of the other items? You are using your judgment as to how much each Institute should contribute to this fund; are you not?

Dr. SEBRELL. Yes, sir; and as Dr. Shannon has said, this varies from time to time, according to the programs of the Institutes, and as the programs shift in emphasis, and the various ways in which the program goes from month to month.

Mr. BUDGE. Why would not that be true of the entire operation?

Dr. SHANNON. I do not know what you mean, Mr. Budge, by the entire operation.

Mr. BUDGE. The total operation of the National Institutes of Health.

Dr. SHANNON. Well, sir, I think it can only be said that working within a fiscal-year structure, one has to make the adjustment as best he sees it to be able to get the most out of the dollar. Actually, if it were possible to vary one's budget during the fiscal year, I dare say that we would have a more effective operation.

Mr. BUDGE. Well, Doctor, it boils down to this: You do not hesitate to use your discretion here as to the amounts which are taken from each of the individual appropriations for the Institutes, however, you do not want to accept the same responsibility in the overall program. Is that not correct?

Dr. SHANNON. This judgment is purely a technical and professional judgment not involving policy as to program emphasis.

Mr. BUDGE. I think it very definitely affects policy and program emphasis when you have the discretion to take such funds, as you see fit, from each of the Institutes for this purpose.

Dr. SHANNON. Well, sir, I just cannot agree, sir.

Mr. BUDGE. Why not?

Dr. SHANNON. Could I give an example, sir?

Mr. BUDGE. Certainly.

Dr. SHANNON. Contained in this are such things as nursing services, and they are probably the largest single item, and we do not consider that we are taking funds from an Institute when we carry one central nursing service for the entire Clinical Center, and where the number of nurses needed by each of the Institutes is determined by the number of patients planned for each Institute.

Mr. BUDGE. Doctor, theoretically, if you wanted to charge the entire nursing activity to, say, the Heart Institute and not charge any of it to the other Institutes, you could do so; could you not?

Dr. SHANNON. No, sir.

Mr. BUDGE. Why not?

Dr. SHANNON. We have to deal with some seven Directors, and they make these judgments with us; I assure you that Dr. Sebrell does not make these judgments alone.

Mr. BUDGE. I mean within your organization, you have that authority now; do you not? That is the way you do it now, isn't it—on the basis of decisions made within your organization?

Dr. SHANNON. Well, I think that is what we do, and I think we do it that way because this committee has shown confidence in our judgment in these technical matters where the problem is purely one of technical and professional judgment.

Mr. BUDGE. Why do you object to letting the committee have confidence in your judgment, to go a step further, to the extent of handling this work under one lump-sum appropriation? Why is your judgment better for this one instance than it would be for the overall program?

Dr. SHANNON. Because this is purely a technical matter, and the others involve policy.

Mr. BUDGE. Doctor, if you can take $9.5 million as you see fit from one, or a number, of the Institutes, that certainly would be reducing

the funds available to the Institutes, and that is a matter of policy; is it not?

Dr. SHANNON. No, sir; I do not believe so.

Mr. BUDGE. Well, you ask us to appropriate funds as a matter of policy to one Institute or the other, and not to all of them as a whole.

Dr. SHANNON. Yes, sir.

Mr. BUDGE. If you have the power to reduce the funds which we appropriate, you are determining policy just as much as we are determining policy; are you not?

Dr. SHANNON. No, sir; we are not reducing the funds available to the institute. These services are services requested by the institute, which it turns out are needed by more than a single institute, and which would be more effectively done in a single place instead of putting them in seven places.

Mr. BUDGE. But you still have the power to allocate which institute pays for the services?

Dr. SHANNON. Yes, sir.

Dr. SEBRELL. While we have the power, Mr. Budge, as a matter of practical operating, it is impossible to do any such thing as that. I am sure some of my institute directors would be down here screaming the next day if any great distortions were made.

The money is planned to be spent for experimental animals or nurses, or some other service, and it is proportioned out on a quota or a formula basis. It has to go one way or the other, and we do things through joint discussions and general agreements so that no institute feels that it is being particularly penalized or that it is paying more than it should.

Mr. BUDGE. All right, but why would not the same thing be true if you had a lump-sum appropriation?

Dr. SEBRELL. Because then the decision that has to be made in the NIH is "shall it go for cancer?" or "shall it go for neurology" or what proportion should go for heart, instead of for cancer?

Mr. BUDGE. Which is just exactly what you do with the centralized services; is it not?

Dr. SEBRELL. This is the supplying of the services after the policy has been made.

I am not going to violate the wishes of Congress. If Congress says that they want the bulk of the money spent on cancer or neurology, or what have you, that is where the money is going, insofar as I am concerned.

Mr. BUDGE. Doctor, do you have any objection to the committee making a direct appropriation for the purpose of centralized services, rather than having you apportion that charge against the several institutes?

Dr. SEBRELL. Not if that is what the committee wishes to do. I would certainly go along with it; of course.

Mr. BUDGE. I am just trying to be consistent. I do not believe that you should ask us to allocate the funds among the several institutes, and at the same time have the power to reduce the funds.

Dr. SEBRELL. I think it would serve to restrict some of this flexibility that I have been pleading for as an essential part of being able to make the most use of a thing as vague as research, where you do not know next month what the situation will be.

Mr. BUDGE. You want to be flexible with this fund, but not with the overall fund?

Dr. SEBRELL. Well, there is quite a difference.

Mr. BUDGE. It may be in amount, but the principle is the same.

Dr. SEBRELL. I am afraid I would have to have national hearings of some kind to decide what proportion should go into heart research, and what should go into cancer research.

Mr. BUDGE. I just want to be consistent.

Mr. HARLOW. May I inject one thing into this discussion, and that is the fact that we have in the basic law the direction to appoint the National Advisory Council in these various fields, and when you get there into the policy of how much shall go for heart and cancer, and so forth, you have then the conflicting interests of these various national councils to deal with.

Mr. BUDGE. You would have that in both the overall picture and the centralized services; would you not?

Mr. HARLOW. Well, no, sir, because the centralized service is essentially that which the various institutes buy from the head office, and they state in terms of service what they need and the head office sets itself up to provide that service, and the institutes pay for it.

Mr. BUDGE. Well, I do not want to take any more time on this now, Mr. Chairman.

PROPORTION OF FUNDS SPENT ON RESEARCH

Dr. VAN SLYKE. Mr. Chairman, may I refer just a moment to the committee report, and the percentages spent on research?

Mr. BUSBEY. Surely.

Dr. VAN SLYKE. The committee report says—

> the committee will expect the percentages spent on research to be greater instead of less in fiscal year 1954.

The grants in direct research were increased from 60 percent to 66 percent in fiscal year 1954. So, we did increase it percentagewise and we did increase research grants in direct research by $11,374,000 this year, and so we have kept faith with the committee.

Mr. BUDGE. Doctor, at the same time, moneywise, did you not spend more money on the related programs about which we have been speaking?

Dr. VAN SLYKE. We spent the additional amount of money that I refer to, Mr. Budge, on the heart teaching program, which went from $1,373,000 up to $2,628,000 in order to provide this basic line $25,000 program, and a few special teaching grants, and those funds were increased just to provide those base lines which the committee has, over the years, approved for the cancer teaching grants. It is just in line with that.

PROPORTION OF FUNDS SPENT FOR TEACHING GRANTS

Mr. BUSBEY. What was the percentage of teaching grants, which is a related activity, in the Truman budget, Eisenhower budget, and the present 1954 budget?

Dr. VAN SLYKE. For teaching grants alone, Mr. Chairman?

Mr. BUSBEY. Yes; if you do not have it now, you can supply it for the record.

Dr. VAN SLYKE. We can supply it.

(The matter referred to is as follows:)

Percentage of total budget

	Teaching and training grants	Teaching grants only
1954 Truman budget	9.4	4.23
1954 Eisenhower budget	10.2	4.7
1954 appropriations	13.4	7.0

FUNDS BUDGETED BY ACTIVITY, 1953–55

Mr. BUSBEY. At this point in the record, we will insert the tables on pages 976 and 1383 of last year's hearings, and in addition, the comparable tables submitted to the committee recently for fiscal years 1953, 1954, and 1955.

(The matter referred to is as follows:)

Fiscal year 1953 obligations, National Institutes of Health, by appropriation; by activity

	NIH	Arthritis	Microbiology	Neurology	Cancer	Mental	Heart	Dental	Total
Grants:									
Research projects	$4,243,322	$1,341,749	$1,945,174	$1,273,122	$4,778,801	$1,648,651	$4,948,325	$220,053	$30,399,197
Research fellowships	198,198	148,883	149,512	148,398	624,482	249,292	450,000	48,171	2,016,936
Teaching grants					1,545,660		1,368,487		2,914,147
Training grants				43,918		3,629,506			3,673,424
Training stipends		51,170		51,010	499,530		248,703		850,413
Grants to States					3,009,416	3,060,078	1,445,997		7,515,491
Special control grants					899,288				899,288
Total grants	4,441,520	1,541,802	2,094,686	1,516,448	11,357,177	8,587,527	8,461,512	268,224	38,268,896
Direct operations:									
Research		2,660,973	3,288,936	208,785	4,190,563	1,095,608	2,128,978	357,440	13,931,283
Review and approval of grants	547,600	17,530	14,505	21,331	94,658	127,085	82,040	9,139	913,888
Training activities						63,862			63,862
Technical assistance to States					349,371	405,826	337,558	788,139	1,880,894
Coordination and development of dental resources								121,722	121,722
Administration		114,923	135,516	67,086	304,759	277,160	198,927	50,498	1,148,869
Total, direct operations	547,600	2,793,426	3,438,957	297,202	4,939,351	1,969,541	2,747,503	1,326,938	18,060,518
Total obligations	4,989,120	4,335,228	5,533,643	1,813,650	16,296,528	10,557,068	11,209,015	1,595,162	56,329,414
Adjustments [1]	+11,609,630	−4,335,228	−5,533,643	−1,813,650	+1,590,472	+337,932	+790,985	+54,838	+2,701,336
1953 appropriations	16,598,750				17,887,000	10,895,000	12,000,000	1,650,000	59,030,750

[1] Includes adjustments for obligations incurred in advance of program performance, transfers, unobligated balances, and outside reimbursements.

1954 printed budget (Truman budget)

	Operating expenses, NIH	Arthritis	Microbiology	Neurology	Cancer	Mental	Heart	Dental	Total
Grants:									
Research projects	$4,500,000	$2,614,000	$2,947,000	$4,328,000	$4,734,000	$2,665,000	$5,070,000	$564,000	$27,422,000
Research fellowships	124,000	135,000	117,000	150,000	514,000	187,000	357,000	50,000	1,634,000
Teaching grants					2,225,000		1,373,000		3,598,000
Training grants				210,000		4,176,000			4,386,000
Training stipends		150,000		100,000	500,000		250,000		1,000,000
Grants to States					3,000,000	3,100,000	1,500,000		7,600,000
Special control grants					900,000				900,000
Construction grants		2,000,000		2,000,000	4,000,000	2,500,000	4,000,000	500,000	15,000,000
Total grants	4,624,000	4,899,000	3,064,000	6,788,000	15,873,000	12,628,000	12,550,000	1,114,000	61,540,000
Direct operations:									
Research		3,346,000	3,718,000	797,000	5,277,000	1,990,000	3,322,000	579,000	19,029,000
Review and approval of grants	556,000	18,000	15,000	22,000	100,000	130,000	90,000	11,000	942,000
Training activities						70,000			70,000
Technical assistance to States					400,000	398,000	345,000	800,000	1,943,000
Coordination and development of dental resources								126,000	126,000
Administration		187,000	203,000	63,000	350,000	284,000	193,000	70,000	1,350,000
Total direct operations	556,000	3,551,000	3,936,000	882,000	6,127,000	2,872,000	3,950,000	1,586,000	23,460,000
Appropriation estimate	5,180,000	8,450,000	7,000,000	7,670,000	22,000,000	15,500,000	16,500,000	2,700,000	85,000,000

Revised 1954 budget estimate (Eisenhower budget)

	Operating expenses, NIH	Arthritis	Microbiology	Neurology	Cancer	Mental	Heart	Dental	Total
Grants:									
Research projects	$4,000,000	$1,466,000	$1,950,000	$1,476,000	$4,734,000	$1,649,000	$4,927,000	$221,000	$20,423,000
Research fellowships	124,000	135,000	117,000	150,000	514,000	187,000	357,000	50,000	1,634,000
Teaching grants					1,625,000		1,023,000		2,648,000
Training grants				58,500		3,051,000			3,109,500
Training stipends		50,000		51,500	300,000		125,000		526,500
Grants to States					2,250,000	2,325,000	1,125,000		5,700,000
Special control grants					900,000				900,000
Total grants	4,124,000	1,651,000	2,067,000	1,736,000	10,323,000	7,212,000	7,557,000	271,000	34,941,000
Direct operations:									
Research		3,120,000	3,453,000	753,000	4,669,000	1,785,000	2,914,000	573,000	17,267,000
Review and approval of grants	551,000	18,000	15,000	22,000	96,000	120,000	86,000	11,000	919,000
Training activities						60,000			60,000
Technical assistance to States					353,000	361,000	297,000	700,000	1,711,000
Coordination and development of dental resources								115,000	115,000
Administration		187,000	203,000	63,000	339,000	279,000	186,000	70,000	1,327,000
Total direct operations	551,000	3,325,000	3,671,000	838,000	5,457,000	2,605,000	3,483,000	1,469,000	21,399,000
Appropriation estimate	4,675,000	4,976,000	5,738,000	2,574,000	15,780,000	9,817,000	11,040,000	1,740,000	56,340,000

Fiscal year 1954 appropriation (adjusted), National Institutes of Health, by appropriation, by activity

	NIH	Arthritis	Microbiology	Neurology	Cancer	Mental	Heart	Dental	Total
Grants:									
Research projects	$4,000,000	$3,196,000	$1,950,000	$2,700,000	$7,369,000	$2,587,000	$6,843,000	$221,000	$28,866,000
Research fellowships	124,000	175,000	117,000	150,000	750,000	187,000	580,000	50,000	2,133,000
Teaching grants					2,355,000		2,628,000		4,983,000
Training grants				400,000		4,176,000			4,576,000
Training stipends		250,000		104,000	500,000		400,000		1,254,000
Grants to States					2,250,000	2,325,000	1,125,000		5,700,000
Special control grants					1,100,000				1,100,000
Total grants	4,124,000	3,621,000	2,067,000	3,354,000	14,324,000	9,275,000	11,576,000	271,000	48,612,000
Direct operations:									
Research		3,145,150	3,454,300	1,039,750	4,923,775	1,893,575	2,987,750	573,875	18,018,175
Review and approval of grants	556,250	48,000	15,000	48,000	135,000	138,000	133,000	11,000	1,084,250
Training activities						60,000			60,000
Technical assistance to States					393,000	417,000	297,000	706,000	1,813,000
Coordination and development of dental resources								112,000	112,000
Administration		171,000	185,000	60,000	329,000	276,000	176,000	67,000	1,264,000
Total direct operations	556,250	3,364,150	3,654,300	1,147,750	5,780,775	2,784,575	3,593,750	1,469,875	22,351,425
Total obligations	4,680,250	6,985,150	5,721,300	4,501,750	20,104,775	12,059,575	15,169,750	1,740,875	70,963,425
Adjustments [1]	−5,250	+14,850	+16,700	−1,750	+132,225	+35,425	−1,750	−875	+189,575
1954 appropriations	4,675,000	7,000,000	5,738,000	4,500,000	20,237,000	12,095,000	15,168,000	1,740,000	71,153,000

[1] Includes adjustments for transfers and outside reimbursements.

Fiscal year 1955 estimate, National Institutes of Health, by appropriation, by activity

	NIH	Arthritis	Microbiology	Neurology	Cancer	Mental	Heart	Dental	Total
Grants:									
Research projects	$4,000,000	$3,152,000	$1,950,000	$2,700,000	$6,700,000	$2,587,000	$6,400,000	$221,000	$27,710,000
Research fellowships	124,000	150,000	117,000	150,000	625,000	187,000	450,000	50,000	1,853,000
Teaching grants					2,225,000		2,362,000		4,587,000
Training grants				400,000		3,676,000			4,076,000
Training stipends		250,000		104,000	500,000		400,000		1,254,000
Grants to States					2,250,000	2,325,000	1,125,000		5,700,000
Special control grants					1,100,000				1,100,000
Total grants	4,124,000	3,552,000	2,067,000	3,354,000	13,400,000	8,775,000	10,737,000	271,000	46,280,000
Direct operations:									
Research		3,512,000	3,664,000	1,283,000	5,514,000	2,820,000	3,276,000	620,000	20,689,000
Review and approval of grants	551,000	36,000	15,000	48,000	107,000	123,000	100,000	11,000	991,000
Training activities						50,000			50,000
Technical assistance to States					393,000	397,000	290,000	660,000	1,740,000
Coordination and development of dental resources								100,000	100,000
Administration		170,000	184,000	78,000	316,000	295,000	167,000	68,000	1,278,000
Total direct operations	551,000	3,718,000	3,863,000	1,409,000	6,330,000	3,685,000	3,833,000	1,459,000	24,848,000
1955 estimates	4,675,000	7,270,000	5,930,000	4,763,000	19,730,000	12,460,000	14,570,000	1,730,000	71,128,000

Operating Expenses

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$16,598,750	$4,675,000	$4,675,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		5,250	
Adjusted appropriation or estimate	16,598,750	4,680,250	4,675,000
Reimbursements from non-Federal sources		150,000	246,000
Reimbursements from other accounts	2,943,078	7,090,300	9,191,000
Total available for obligation	19,541,828	11,920,550	14,112,000
Unobligated balance, estimated savings	−542,263		
Obligations incurred	18,999,565	11,920,550	14,112,000
Comparative transfer to—			
"Arthritis and metabolic disease activities, Public Health Service":			
Direct obligations	−4,288,227		
Reimbursable obligations	−47,001		
"Microbiology activities, Public Health Service":			
Direct obligations	−5,330,714		
Reimbursable obligations	−202,929		
"Neurology and blindness activities, Public Health Service"	−1,445,547		
"Salaries and expenses, Office of the General Counsel, Office of the Secretary of Health, Education, and Welfare"	−2,879		
Comparative reimbursable obligations transferred from other accounts	1,628,206		
Total obligations	9,310,474	11,920,550	14,112,000

Note.—Reimbursements from non-Federal sources above reflect anticipated proceeds from sale of meals.

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
Appropriated funds:			
1. Grants for research and training:			
(*a*) Research projects	$4,243,322	$4,000,000	$4,000,000
(*b*) Research fellowships	198,198	124,000	124,000
2. Direct operations: (*b*) Other direct operations: (1) Review and approval of research and training grants	547,600	556,250	551,000
Total appropriated funds	4,989,120	4,680,250	4,675,000
Reimbursements from non-Federal sources:			
2. Direct operations: (*a*) Research		150,000	246,000
Total direct obligations	4,989,120	4,830,250	4,921,000
Obligations Payable Out of Reimbursements From Other Accounts			
2. Direct operations:			
(*a*) Research	3,706,343	6,345,300	8,452,000
(*b*) Other direct operations:			
(1) Review and approval of research and training grants	11,352	84,000	39,000
(2) Administration	603,659	661,000	700,000
Total obligations payable out of reimbursements from other accounts	4,321,354	7,090,300	9,191,000
Total obligations	9,310,474	11,920,550	14,112,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
PUBLIC HEALTH SERVICE			
Summary of Personal Services			
Total number of permanent positions	1,323	1,839	2,243
Full-time equivalent of all other positions	7	19	12
Average number of all employees	886	1,611	2,054
Average salaries and grades:			
General schedule grades:			
Average salary	$4,167	$4,000	$3,905
Average grade	GS–5.6	GS–5.4	GS–5.3
Crafts, protective, and custodial grades:			
Average salary	$3,005	$2,974	$2,925
Average grade	CPC–4.3	CPC–4.2	CPC–4.1
Ungraded positions: Average salary	$3,360	$3,663	$3,663
Personal service obligations:			
Permanent positions	$3,465,422	$5,967,391	$7,460,564
Other positions	34,691	85,300	70,800
Regular pay in excess of 52-week base	16,528	23,973	28,900
Payment above basic rates	79,468	109,100	140,900
Total personal service obligations	3,596,109	6,185,764	7,701,164
Direct Obligations			
Appropriated funds:			
01 Personal services	461,300	472,500	469,000
02 Travel	41,738	43,000	43,000
03 Transportation of things	305	300	300
04 Communication services	7,464	13,250	11,500
05 Rents and utility services	644	600	600
06 Printing and reproduction	7,827	10,000	10,000
07 Other contractual services	8,900	400	400
08 Supplies and materials	15,859	12,000	12,000
09 Equipment	2,518	3,000	3,000
11 Grants, subsidies, and contributions	4,436,520	4,124,000	4,124,000
15 Taxes and assessments	1,045	1,200	1,200
Total obligations payable out of appropriated funds	4,984,120	4,680,250	4,675,000
Reimbursements from non-Federal sources:			
01 Personal services		50,000	82,000
08 Supplies and materials		100,000	164,000
Total obligations payable out of reimbursements from non-Federal sources		150,000	246,000
Total direct obligations	4,984,120	4,830,250	4,921,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	3,134,809	5,663,264	7,150,164
02 Travel	23,397	44,800	64,800
03 Transportation of things	10,281	11,300	22,800
04 Communication services	40,785	73,500	104,000
05 Rents and utility services	185,842	393,500	466,700
06 Printing and reproduction	29,709	32,400	46,400
07 Other contractual services	138,669	86,300	77,300
08 Supplies and materials	682,820	776,700	1,209,800
09 Equipment	72,129	51,000	67,500
13 Refunds, awards, and indemnities	376		
15 Taxes and assessments	10,569	22,900	41,900
Subtotal	4,329,386	7,125,664	9,251,364
Deduct charges for quarters and subsistence	8,032	35,364	60,364
Total obligations payable out of reimbursements from other accounts	4,321,354	7,090,300	9,191,000
Total obligations	9,305,474	11,920,550	14,112,000
ALLOCATION TO NATIONAL SCIENCE FOUNDATION			
07 Other contractual services	5,000		

Obligations by objects—Continued

Object classification	1953 actual	1954 estimate	1955 estimate
SUMMARY			
Summary of Personal Services			
Total number of permanent positions	1,323	1,839	2,243
Full-time equivalent of all other positions	7	19	12
Average number of all employees	886	1,611	2,054
Average salaries and grades:			
General schedule grades:			
Average salary	$4,167	$4,000	$3,905
Average grade	GS–5.6	GS–5.4	GS–5.3
Crafts, protective, and custodial grades:			
Average salary	$3,005	$2,974	$2,925
Average grade	CPC–4.3	CPC–4.2	CPC–4.1
Ungraded positions: Average salary	$3,360	$3,663	$3,663
Personal service obligations:			
Permanent positions	$3,465,422	$5,967,391	$7,460,564
Other positions	34,691	85,300	70,800
Regular pay in excess of 52-week base	16,528	23,973	28,900
Payment above basic rates	79,468	109,100	140,900
Total personal service obligations	3,596,109	6,185,764	7,701,164
Direct Obligations			
Appropriated funds:			
01 Personal services	461,300	472,500	469,000
02 Travel	41,738	43,000	43,000
03 Transportation of things	305	300	300
04 Communication services	7,464	13,250	11,500
05 Rents and utility services	644	600	600
06 Printing and reproduction	7,827	10,000	10,000
07 Other contractual services	13,900	400	400
08 Supplies and materials	15,859	12,000	12,000
09 Equipment	2,518	3,000	3,000
11 Grants, subsidies, and contributions	4,436,520	4,124,000	4,124,000
15 Taxes and assessments	1,045	1,200	1,200
Total obligations payable out of appropriated funds	4,989,120	4,680,250	4,675,000
Reimbursements from non-Federal sources:			
01 Personal services		50,000	82,000
08 Supplies and materials		100,000	164,000
Total obligations payable out of reimbursements from non-Federal sources		150,000	246,000
Total direct obligations	4,989,120	4,830,250	4,921,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	3,134,809	5,663,264	7,150,164
02 Travel	23,397	44,800	64,800
03 Transportation of things	10,281	11,300	22,800
04 Communication services	40,785	73,500	104,000
05 Rents and utility services	185,842	393,500	466,700
06 Printing and reproduction	29,709	32,400	46,400
07 Other contractual services	138,669	56,300	77,300
08 Supplies and materials	682,820	776,700	1,209,800
09 Equipment	72,129	51,000	67,500
13 Refunds, awards, and indemnities	376		
15 Taxes and assessments	10,569	22,900	41,900
Subtotal	4,329,386	7,125,664	9,251,364
Deduct charges for quarters and subsistence	8,032	35,364	60,364
Total obligations payable out of reimbursements from other accounts	4,321,354	7,090,300	9,191,000
Total obligations	9,310,474	11,920,550	14,112,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$3,199,032	$2,145,554	$1,225,804
Obligations incurred during the year	18,999,565	11,920,550	14,112,000
Deduct:	22,198,597	14,066,104	15,337,804
Adjustment in obligations of prior years	674,221		
Reimbursements	2,943,078	7,240,300	9,437,000
Obligated balance carried to certified claims account	19,045		
Unliquidated obligations, end of year	2,145,554	1,225,804	1,300,804
Total expenditures	16,416,699	5,600,000	4,600,000
Expenditures are distributed as follows:			
Out of current authorizations	14,123,478	3,800,000	3,800,000
Out of prior authorizations	2,293,221	1,800,000	800,000

Mr. BUSBEY. Under the heading of "Operating expenses," your request for fiscal year 1955 is the same as that for fiscal year 1954, the amount of $4,675,000.

Dr. SEBRELL. Yes, sir.

DATA ON REIMBURSEMENTS

Mr. BUSBEY. Since reimbursement to this account is such an important part of the total funds, we shall insert into the record at this point, without objection, pages 11–2 through 11–2–B of the justifications.

(The matter referred to is as follows:)

Reimbursable obligations

Item	1954 estimate		1955 estimate		Increase (+) or decrease (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
ACTIVITIES						
2. Direct operations:						
(a) Research	1,579	$6,495,300	1,975	$8,698,000	+396	+$2,202,700
(b) Other direct operations:						
(1) Review and approval of research and training grants	9	84,000	9	39,000	0	−45,000
(2) Administration	142	661,000	150	700,000	+8	+39,000
Total reimbursements	1,730	7,240,300	2,134	9,437,000	+404	+2,196,700

Statement of reimbursable services

Activities:	
2. Direct operations:	
(*a*) Research	This activity finances services essential to programs of all Institutes. They include Clinical Center Services and Research Services. The latter consists of Plant and Equipment, Supply, Scientific Reports, and Laboratory Research Services.
(*b*) Other direct operations:	
(1) Review and approval of research and training grants.	This activity provides for the National Institutes of Health's proportionate share for security clearances.
(2) Administration	This activity supplies the overall direction and broad policy formulation of research and other programs of the National Institutes of Health, and furnishes centralized administrative services such as budgeting, financial management, and personnel.

Reimbursements and advances received

Purpose	Account symbol	Statutory authority (if other than 31 U. S. C. 686)	Amount					Should the performing agency receive the appropriation for this activity? (Yes or No)
			Fiscal year 1953, actual	Fiscal year 1954			Fiscal year 1955, estimated	
				Received as of Oct. 31, 1953	Estimated for rest of year	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I. FEDERAL SOURCES								
A. For work performed:								
1. Central services:								
(a) Arthritis and metabolic disease activities, Public Health Service	0384	Annual Appropriation Act.	$754,439	$554,250	$625,750	$1,180,000	$1,517,100	
(b) Microbiology activities, Public Health Service	0385		743,871	512,200	562,000	1,074,200	1,240,000	
(c) Neurology and blindness activities, Public Health Service	0386		129,896	256,600	308,200	564,800	626,950	
(d) Salaries, expenses, and grants, National Cancer Institute, Public Health Service	0349		1,414,776	916,250	1,032,250	1,948,500	2,435,950	
(e) Mental health activities, Public Health Service	0363		518,950	425,700	470,000	895,700	1,655,400	
(f) Salaries, expenses, and grants, National Heart Institute, Public Health Service	0372		662,108	581,750	688,250	1,270,000	1,522,500	
(g) Dental health activities, Public Health Service	0373		81,049	76,050	81,050	157,100	193,100	
2. Research projects:								
(a) Department of Defense			15,444	0	0	0	0	
(b) Miscellaneous			821	0	0	0	0	
Total Federal sources			4,321,354	3,322,800	3,767,500	7,090,300	9,191,000	
II. NON-FEDERAL SOURCES								
A. For work performed:								
1. Proceeds from sale of employee meals		Annual Appropriation Act.	0	22,690	127,310	150,000	246,000	No.
Total, all reimbursements			4,321,354	3,345,490	3,894,810	7,240,300	9,437,000	

TRANSFER FOR SECURITY COSTS

Mr. BUSBEY. Doctor, are the funds for review and approval of research and training grants, spent by the National Institutes, or are they transferred to the Secretary's Office?

Dr. SEBRELL. Is that the $39,000 item?

Mr. BUSBEY. Yes.

Dr. SEBRELL. That is right; that is transferred to the Secretary's Office.

Mr. BUSBEY. Why was the cost $84,000 in fiscal year 1954, and estimated at $39,000 in fiscal year 1955, while the positions remained the same?

Dr. SHANNON. That stems from a different way in which the department is now handling its security program. I don't know the details of that, but I am sure we would like to supply it for the record, with a breakdown.

Mr. BUSBEY. All right, if you will, please.

(The matter referred to is as follows:)

Reimbursements to the central review and approval activity of this appropriation (as shown on p. 11–2) are for two purposes: (1) $45,000 for increased research-grant workload in fiscal 1954 and (2) 9 positions and $39,000 for Institutes share of security costs in both fiscal 1954 and 1955. The decrease of $45,000 in 1955 does not apply to security, it is due to a decrease in part-time and temporary employment in line with decreases in research projects and fellowships reflected in certain appropriations for fiscal 1955. The table on page 11–2 includes only full-time permanent employees and therefore the number does not change between 1954 and 1955.

INCREASE IN TRANSFER FROM MENTAL HEALTH ACTIVITIES

Mr. BUSBEY. On page 11–2A, I notice there is an increase in the transfer from "Mental health activities," from $895,700 to $1,655,400, while the increases that apply to the other Institutes are very slight.

Why is that, Doctor?

Dr. SHANNON. That is largely made up because we find the nursing services and attendant services in the mental health area, as mentioned by Dr. Sebrell, in his opening statement, are much in excess of our initial calculation.

We find that the cost, as initially computed does not bear up in practice, and all this is primarily because of the high cost of medical care—not medical care, but clinical care for mental patients.

SOCIAL SERVICE ACTIVITIES

Mr. BUSBEY. On page 11–9 of the justifications, I notice you have 21 people budgeted for social service activities. This figures out to approximately 1 for every 17 patients, even at the peak of 350 which you estimate you will reach during fiscal year 1955.

Dr. SHANNON. We think that that may be a low figure. We appreciate that one of our problems in research and chronic diseases involves the following up of patients over long periods of time, which means that rather as it is true in the ordinary hospital that the family is wholly unimportant, in this service, our ability to get our money's worth out of the research dollar depends upon our ability to know the family as well as the patient, and be able to carry them for long periods of time.

So, as I say, I think this may be an underestimation of our needs.

RESEARCH SERVICES

Mr. BUSBEY. Since research services are such an important part of the work performed under this appropriation, without objection, we shall place into the record page 11–15 of the justifications which gives a breakdown of that activity.

(The matter referred to is as follows:)

Research services 1955 estimates by function

Function	Personal services		Other objects	Total
	Position	Amount		
RESEARCH PLANT AND EQUIPMENT SERVICES				
Office of Chief and administrative services	28	$101,250	$14,210	$115,460
Plans and specifications	6	18,600	1,300	19,900
Mechanical engineering	88	286,950	204,750	491,700
Electrical engineering	32	109,080	52,920	162,000
Construction and shops	88	311,475	75,935	387,410
Grounds maintenance	37	110,360	13,440	123,800
General services	131	352,315	21,885	374,190
NIH utility services			429,500	429,500
Total research plant and equipment services	410	1,290,080	813,900	2,103,960
LABORATORY RESEARCH SERVICES				
Office of Chief	5	30,700	1,800	32,500
Instrument section	31	144,800	21,460	166,260
Animal section	74	233,600	136,975	370,575
Media section	11	33,600	6,180	39,780
Laboratory attendant section	40	119,600	121,585	241,185
Total laboratory research services	161	562,300	288,000	850,300
Supply services (total)	43	160,300	19,700	180,000
SCIENTIFIC REPORT SERVICES				
Office of Chief, editorial, and special events services	19	98,200	19,370	117,600
Library and translating service	34	152,070	18,800	170,870
Medical arts and photographic service	27	119,020	19,510	138,530
Biometrics and statistical processing	27	113,100	67,500	180,900
Research planning	4	25,050	1,050	26,100
Total scientific report services	111	507,800	126,230	634,000
Subtotal	728	2,520,480	1,247,830	3,768,260
Less quarters and subsistence		−1,260	0	−1,260
Total research services	728	2,519,220	1,247,830	3,767,000

Mr. BUSBEY. What is the difference between the item of $597,000 on page 11–9 for "Operation of plant and equipment" and the $2,103,960 on page 11–15 for "Research plant and equipment services"?

Dr. SHANNON. I would like for Mr. Siepert to answer that question.

Mr. SIEPERT. The answer to that, Mr. Chairman, is that building No. 10, which is the Clinical Center structure, is such a unique building that it has within it certain facilities to service and keep that plant in top shape and safe operating condition.

The costs of that service are primarily related to the patient-care facility in that structure, and are separately budgeted, as shown here.

There is another item under research services for operating the rest of the plant on the NIH reservation.

SUPPLY SERVICES

Mr. BUSBEY. I notice on page 11–15 under "Supply services," that you have 43 positions. Why do you need so many when you have the Perry Point supply depot which was given additional capital last year so it could handle much of the NIH purchasing?

Dr. SHANNON. This is purely for day-to-day operations out in the Bethesda area, and actually Perry Point is of less importance to us than it is, I believe, to the remainder of the Public Health Service.

Mr. BUSBEY. Are there additional procurement and supply personnel at the individual Institutes?

Dr. SEBRELL. No, sir; this is a centralized supply service, which is designed to facilitate procurement accountability and management and disposal of the property utilized by all of the constituent organizations in the National Institutes of Health.

This includes all sorts of technical, scientific, medical and surgical instruments and equipment, electrical and chemical devices, vehicles, and all sorts of things, as well as office furniture.

We think the workload of this, actually, is going to increase during fiscal year 1955, because of the greater variety of goods being purchased for research at the Clinical Center.

ANIMAL SECTION

Mr. BUSBEY. In the "Animal section" you have 74 positions. Do you look for a decrease, or an increase in future years, in that activity?

Dr. SHANNON. We would expect, within the next year or two, not to have either an increase or a decrease.

This provides, actually, for the rearing of something like three-quarters of a million animals a year. Our facility at Bethesda has the capacity to rear up to about 1 million animals a year. This, also, introduces the ability to take care of some of the larger animals, such as dogs, in long-term clinic studies lasting periods of years, rather than periods of months. It also provides for the ability to rear certain experimental dogs, where nutrition is important from birth, and it provides, for the first time, adequate facilities and some measure of care for the large-size primates which are so essential to the program in mental health and neurology.

I think that is some of the specialized areas there is no doubt that this field will increase, but not immediately.

LIBRARY AND TRANSLATING SERVICE

Mr. BUSBEY. Under the heading of "Library and translating service," you are requesting 34 positions?

Dr. SEBRELL. This involves our library, which is a 60,000-volume research library, and translates the medical and scientific literature for our staff.

This library is in no sense a duplicating library of other medical libraries in this area.

This library has been designed, and it works cooperatively with such places as the Library of Congress, and the Surgeon General's Library, and this is a working library composed very largely of scientific journals which the research men have to have available to them for consultation in connection with their research projects.

We have to do a very large amount of translating medical articles from the foreign journals, and that runs into a considerable amount of work, which involves the lending of the material back and forth.

Now, this is in the scientific reports section. We probably will require an additional librarian in connection with broadening our library to cover this field of clinical investigations, which we have not covered in the past. When we were mainly and solely a laboratory research program, our library was based on concentrating in that field, and now, with the clinical research coming in, we have to include the clinical research journals. This means broadening it out to some extent.

MEDICAL ARTS AND PHOTOGRAPHIC SERVICES

Mr. BUSBEY. Please tell us what will be done by the 27 people that are budgeted for "Medical arts, and photographic services?"

Dr. SEBRELL. These people provide the services in connection with writing scientific papers. We have to have charts and diagrams, and photographs of various parts of the experiments. These very frequently are made into lantern slides for presentation at scientific meetings, and in this, I believe, there are three positions in this field designed to meet the increasing demand for services, again, in the clinical investigation work. We now have the question of photographing patients, and everything that needs to be photographed involving clinical research materials, as well as our former laboratory research workload.

Mr. BUSBEY. Mr. Fogarty?

RECENT BUDGET SUBMISSIONS

Mr. FOGARTY. What was the Truman budget estimate a year ago?

Mr. BROWN. $5,180,000.

Mr. FOGARTY. What was the Eisenhower budget?

Mr. BROWN. $4,675,000.

Mr. FOGARTY. What did this committee allow?

Mr. BROWN. $4,675,000.

Mr. FOGARTY. What did the Senate do?

Mr. BROWN. They approved the same amount in the Senate committee.

Mr. FOGARTY. That is, $4,675,000?

Mr. BROWN. Yes, sir.

Mr. FOGARTY. What was appropriated?

Mr. BROWN. $4,680,250.

Mr. FOGARTY. The Senate must have appropriated more than we did?

Mr. BROWN. I am sorry; that is an adjusted figure. They appropriated $4,675,000.

Mr. FOGARTY. The Senate appropriated $4,675,000?

Mr. BROWN. Yes, sir.

Mr. FOGARTY. Now, that was just for the operating expenses of NIH. How much was the total in the Truman budget?

Mr. BROWN. For the entire institutes?

Mr. FOGARTY. Yes; give me, first, the Truman estimates, please.

Mr. BROWN. I do not have the total of the estimates, Mr. Fogarty.

Dr. SHANNON. That amount was $85 million.

Mr. FOGARTY. The Truman estimate was $85 million even?
Dr. SHANNON. Yes, sir. That was the printed budget.
Mr. FOGARTY. What was the Eisenhower revised budget?
Dr. SHANNON. $56,340,000.
Mr. FOGARTY. How much did the House allow?
Dr. SHANNON. Mr. Brown will have to give that, sir.
Mr. BROWN. I do not have that figure with me.
Mr. FOGARTY. I have a figure here of $61,586,200. Is that correct?
Mr. BROWN. Yes, sir.
Mr. FOGARTY. And, the Senate bill raised that to $72,153,000.
Dr. SHANNON. Yes, sir.
Mr. FOGARTY. The conferees agreed on $71,153,000, which was a reduction of $1 million; was it not?
Dr. SHANNON. It was $71,153,000.
Mr. FOGARTY. That is what you have available for this fiscal year; is that right?
Dr. SHANNON. Yes, sir.
Mr. FOGARTY. Now, you are requesting $71,128,000 for fiscal year 1955?
Dr. SHANNON. Yes, sir.
Mr. FOGARTY. That is practically the same amount as the Congress appropriated last year.
Dr. SHANNON. Yes, sir; less $25,000.
Dr. SEBRELL. It is just about the same.

COSTS TO BE ABSORBED

Mr. FOGARTY. How much did your penalty mail amount to?
Mr. HARLOW. The penalty mail estimate for 1955 was $19,000, Mr. Fogarty, for the NIH.
Mr. FOGARTY. What is the cost of in-grade promotions?
Dr. SHANNON. We will have to supply that for the record, sir.
(The matter referred to is as follows:)

Represents unbudgeted 1955 costs due to within-grade promotions

Appropriation	*Total*
Operating expenses, National Institutes of Health, Public Health Service	$4,900
Arthritis and metabolic-disease activities, Public Health Service	38,200
Microbiology activities, Public Health Service	38,500
Neurology and blindness activities, Public Health Service	13,400
Salaries, expenses, and grants, National Cancer Institute, Public Health Service	64,600
Mental health activities, Public Health Service	42,300
Salaries, expenses, and grants, National Heart Institute, Public Health Service	41,100
Dental health activities, Public Health Service	5,700
Total	248,700

Mr. FOGARTY. Are there any other costs that you have to absorb besides penalty mail and the Ramspeck promotions?
Dr. SEBRELL. We have to pay our proportionate cost of security.
Mr. FOGARTY. How much is that?
Dr. SHANNON. $45,000.
Mr. BUDGE. Would the gentlemen from Rhode Island yield to me there?
Mr. FOGARTY. Yes, sir.

NONRECURRING COSTS

Mr. BUDGE. While that is being supplied for the record, would you also supply a tabulation of any nonrecurring costs?

Dr. SEBRELL. Yes, sir; but I do not believe there are any in this appropriation, Mr. Budge, except for transfers.

Mr. BUDGE. What about the service and supply fund item of $200,000? Will that not be nonrecurring?

Dr. SHANNON. That is not in this present budget. That is a transfer.

Mr. BUDGE. But that is an expense that you had in fiscal year 1954, which will not occur in this budget. Items of that type are the ones which I would like furnished for the record.

Dr. SEBRELL. Yes, sir; we will furnish those for the record.

(The matter referred to is as follows:)

Nonrecurring items reflected in 1954 appropriations [1]

	Cancer	Mental	Arthritis	Microbiology	Total
Transfers to:					
Service and supply fund	108,400	57,000	16,600	18,000	200,000
HEW appropriations	26,200				26,200
Total	134,600	57,000	16,600	18,000	226,200

[1] None in OE, NIH, heart, dental, and microbiology appropriations.

NOTE.—Authority for these transfers was set forth in the 1954 Labor-HEW Appropriation Act. The $200,000 item will not be shown on our accounts as an expenditure since it is a transfer of funds available rather than an expense item.

The $26,000 is for terminal leave payments in other parts of HEW and will be reflected as expenses in those accounts.

ESTABLISHMENT OF INSTITUTES

Mr. FOGARTY. When was the legislation enacted that established the Cancer Institute? That was the first one authorized; was it not?

Dr. SEBRELL. It was established on August 5, 1937.

Mr. FOGARTY. When was the first appropriation made?

Dr. HELLER. It was made for the fiscal year 1938, sir.

Mr. FOGARTY. How much was the initial appropriation?

Dr. HELLER. $400,000, if my memory serves me correctly.

Mr. BUDGE. I think the actual figure was $464,000, if you will allow me to interrupt.

Dr. HELLER. Yes, sir.

Mr. FOGARTY. What was the next institute to be established? Was it the Heart Institute?

Dr. SEBRELL. I believe the Mental Health Institute was next.

Mr. FOGARTY. Was that organized in 1947?

Dr. SEBRELL. No, sir; the National Mental Health Act was passed in 1946; the Institute was established when the PHS mental health program moved to the NIH in 1948.

Mr. FOGARTY. What was that initial appropriation?

Mr. BUDGE. I can furnish that, Mr. Fogarty, it was for fiscal year 1948, and it was for $4,250,000.

Mr. FOGARTY. The next one was the Heart Institute; was it not, in 1948?

Dr. SEBRELL. The Dental and Heart Institutes both were in the same year, and they were authorized in 1948.

Mr. FOGARTY. When was the first appropriation made for the Heart Institute?

Dr. SEBRELL. The first appropriation was in 1950, and the first heart appropriation was $10,725,000.

Mr. HARLOW. But, there was $5,350,000 additional contract authority. I believe the total was $16,075,000, including contract authority.

Mr. FOGARTY. The first appropriation was in fiscal year 1950 for the Heart Institute; is that right?

Mr. HARLOW. Yes, sir.

Mr. FOGARTY. What was requested?

Mr. HARLOW. $4 million.

Mr. FOGARTY. The committee print shows an estimate of $4 million, and an appropriation of $10,725,000. Did the Congress raise it that much

Mr. HARLOW. Yes, sir; I believe those figures are correct.

When we got into the construction grant program, which involved contract authority, it was increased, and the additional amount was appropriated, largely, I think, as a result of representations made by citizens who were interested in this particular program.

Mr. FOGARTY. I see.

After the establishment of the Dental Institute, what came next—the Institute for Arthritis and Metabolic Diseases and the Institute for Neurology and Blindness—they were both established in the same year; were they not?

Dr. SEBRELL. They were both established in the same year; yes, sir.

Mr. FOGARTY. When was that, 1950?

Mr. HARLOW. 1954 was the first appropriation.

Mr. FOGARTY. I mean, when did the legislation pass?

Dr. HELLER. It passed in 1950, and the first appropriation was in 1951.

Dr. SEBRELL. It was finally passed in 1950, and the first appropriation was carried in the general NIH appropriation. The first separate appropriation was in fiscal 1954. Is that not right, Mr. Harlow?

Mr. HARLOW. Yes, sir.

Mr. FOGARTY. What was the amount of the first appropriation?

Mr. HARLOW. The first amount appropriated to those particular headings was in 1954, but previous to that time we carried amounts for those institutes under the NIH operating appropriation, and I do not have the amounts available with me.

Mr. FOGARTY. I believe this committee suggested that you set them out individually.

Dr. SEBRELL. As I recall, it was at the request of this committee, that we broke those out, so the amount could be identified, and carried under each category.

Dr. SHANNON. That was the Arthritis and Neurological Institutes.

Mr. BUDGE. The tabulation which you previously furnished the committee shows an item of $1,780,000 for "Arthritis, and metabolic disease activities" in fiscal year 1950.

Mr. HARLOW. Those were amounts which were being expended out of that appropriation at that time, but were expended actually prior to the creation of the institute by law.

Mr. BUDGE. I understand that.

PROGRAM FOR RESEARCH CONSTRUCTION

Mr. FOGARTY. Doctor, tell us about the history of the construction program for research facilities? As I remember it, that started out to be a 5-year plan for heart, mental health, and cancer.

Dr. VAN SLYKE. Mr. Fogarty, since Dr. Heller is in the room, he can correct me on cancer, but I think that the program started in 1946; did it not?

Dr. HELLER. It started, actually, in fiscal year 1948.

Dr. VAN SLYKE. The total amount that has been available for construction of cancer-research facilities is something over $16 million.

Dr. HELLER. $16,303,000.

Mr. FOGARTY. That was appropriated for the construction of research facilities for cancer?

Dr. VAN SLYKE. Yes, sir.

Mr. FOGARTY. The projected program at the time was about $25 million; was it not?

Dr. HELLER. That is correct, sir.

Mr. FOGARTY. That was just for cancer?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. And that was curtailed because of the curtailment of all construction activities of the Federal Government; was it not?

Dr. HELLER. Yes, sir; in 1950.

Mr. FOGARTY. So, instead of getting the full amount of $25 million, you only received $16,303,000.

Was that a 3-year program?

Dr. VAN SLYKE. Yes, sir.

Mr. FOGARTY. Was there a construction program in the institute for mental health?

Dr. VAN SLYKE. There has been no construction program in mental health. The only other research construction facilities in the construction program has been at the National Heart Institute. They have received $6,059,000 for construction, until the program was curtailed.

Mr. FOGARTY. What was the projected program?

Dr. VAN SLYKE. It is my recollection, Mr. Fogarty, that it has been placed in the record, and that it would be a minimum of $35 million.

CURRENT NEED FOR RESEARCH FACILITIES

Mr. FOGARTY. Do you have any facts or figures to show whether there is a great need for research facilities existing in the country at the present time?

Dr. VAN SLYKE. At the direction of the Secretary, after we received a request from Senator Thye, we asked the institutions around the country what were their needs for construction of research facilities, and we have received replies from them indicating that their present need is something over $154 million, and that information has been supplied to Senator Thye, and to his committee, through the Secretary.

Mr. FOGARTY. How was the original plan arrived at? You state that in cancer there was an estimated need of $25 million for research facilities.

Dr. HELLER. Mr. Fogarty, that was arrived at through a determination by the council after the staff of the National Cancer Institute

had some opportunities to confer with some of the major research institutes of the country.

It was more or less of an arbitrary figure, which was at that time in 1947 and 1948 the best judgment that they had in view of the information available to them, and was accepted on the basis by the committee as a reasonable figure, but still an arbitrary figure.

DETAIL OF GRANTS FOR RESEARCH FACILITIES

Mr. FOGARTY. Would you supply for the record the medical schools and others who were given help under those programs, the amount of such assistance, and the type of facility for which the assistance was given?

Dr. SHANNON. Yes, sir.

(The matter referred to is as follows:)

Approved cancer research construction grants by State and institution

State and institution	Description of facilities	Amount
Alabama: Medical College of Alabama and the Jefferson County Health Department.	Interior construction and partial equipment of 3,572 square feet of laboratory.	$47,280
California:		
University of California, San Francisco.	Part of space for cancer research in new hospital and medical science building.	1,000,000
University of California at Los Angeles.	4-story cancer research laboratory wing on new medical school.	700,000
Los Angeles County Hospital	Alteration and equipment of 7,500 square feet of laboratory in old jail.	35,255
University of Southern California	Cancer research laboratories in new 4-story medical research building.	200,000
Colorado: University of Colorado	Part of construction of 5-story plus basement wing for cancer research.	400,000
Connecticut: Yale University	2 floors in animal building for cancer research	250,000
District of Columbia:		
Georgetown University	Construction of addition to animal building and remodeling of laboratories.	148,500
George Washington University	Part of construction of laboratories in new cancer outpatient and research building.	200,000
Do	Remodeling of laboratories in old hospital	50,000
Georgia: Emory University	Portion of construction of cancer research laboratories in 8-story medical research building.	500,000
Illinois:		
University of Chicago	Part of 7-floor and basement wing for laboratories and clinical cancer research building.	450,000
Do	do	240,000
Stritch School of Medicine	Remodeling and equipping cancer research laboratories in medical school.	47,300
Indiana: Indiana University Medical Center.	Part of cancer research laboratories in new medical research building.	126,350
Iowa: State University of Iowa	Modification of laboratory space for using radioisotopes.	12,250
Kansas: University of Kansas	Cancer research laboratories in new medical sciences building.	200,000
Maine:		
Jackson Memorial Laboratory	Part of cost of rebuilding and enlarging animal and laboratory facilities.	250,000
Do	do	100,000
Maryland: Johns Hopkins University.	Portion of cancer research facilities in new outpatient and research building.	750,000
Massachusetts:		
Beth Israel Hospital	3,375 square feet of additional space in animal quarters.	50,000
Boston University	Freight elevator and 3,440 square feet of additional animal quarters.	49,900
Do	do	12,850
Children's Medical Center, Boston.	Part of permanent laboratory equipment in new research building.	100,000
Massachusetts General Hospital	Portion of construction of cancer research laboratories in new research building.	700,000
New England Deaconess Hospital	Construction of 4-story cancer research laboratory building.	400,000
Do	Experimental detection clinic in research building	85,000
Tufts College Medical School	Basic research laboratories and clinical research laboratories in affiliated hospitals.	133,522

Approved cancer research construction grants by State and institution—Continued

State and institution	Description of facilities	Amount
Michigan:		
Wayne University College of Medicine.	1 floor on receiving hospital for clinical cancer research.	$150,000
Do	do	100,000
Minnesota:		
University of Minnesota	Construction of laboratory facilities in Mayo Memorial Center.	543,550
Do	do	135,888
Do	Clinical research facilities in center	200,000
Missouri:		
St. Louis University	Clinical cancer research laboratories adjoining hospital.	625,000
Washington University	Part of 5-story cancer research laboratory building	450,000
Do	Clinical cancer research facilities in new hospital	250,000
New York:		
Columbia University	Portion of construction of 4 additional laboratory floors.	1,000,000
Memorial Center for Cancer and Allied Diseases.	Part of animal facilities and laboratories for experimental surgery.	250,000
New York University, Bellevue Medical Center.	Part of cancer research facilities in new medical science building.	575,000
University of Rochester	Construction of 4-story cancer research wing including metabolic ward and outpatient facilities.	434,368
North Carolina:		
Duke University	Part of construction of 4-floor addition to laboratory building.	200,000
University of North Carolina	Cancer laboratory research floor on new outpatient and research building.	200,000
Ohio:		
Ohio State University	Portion of 4-story wing for cancer research at university hospital.	300,000
Western Reserve University and university hospitals of Cleveland.	Basic and clinical research laboratories at university hospitals.	300,000
Oklahoma: Oklahoma Medical Research Foundation.	Portion of clinical cancer research wing on research building.	125,000
Oregon: University of Oregon	Remodeling and equipment for new isotope laboratory.	10,000
Pennsylvania:		
Institute for Cancer Research, Philadelphia.	Part of permanent equipment for cancer research laboratory building.	149,000
Do	do	49,468
University of Pennsylvania	Remodeling and equipment for cancer laboratories in pathology.	56,208
Do	½ floor for research laboratories in new diagnostic building.	200,000
University of Pittsburgh	Cancer research laboratories in new addition to medical school.	200,000
South Carolina:		
Medical College of South Carolina	Animal facilities for cancer research	16,000
Do	1 floor of cancer laboratories in new addition to medical school.	100,000
Tennessee:		
Meharry Medical College	Construction and equipping of laboratory space in medical school.	20,000
Do	Part of animal quarters	30,385
Vanderbilt University	Part of cancer research laboratory addition to medical school.	126,350
University of Tennessee	4-story cancer research building	491,584
Texas:		
University of Texas	Part of laboratory and clinical facilities in cancer research hospital.	200,000
Do	do	100,000
Utah: University of Utah	Cancer research wing on future medical school building.	416,404
Virginia:		
Medical College of Virginia	Remodeling and equipment for clinical cancer research in hospital.	10,588
University of Virginia	Portion of laboratories in new cancer research and outpatient wing on university hospital.	75,000
Wisconsin: University of Wisconsin	4-story wing for clinical cancer research	975,000
		16,303,000

Approved heart research construction grants by state and institution

State and institution	Description of facilities	Amount
California: University of Southern California.	Cardiovascular research laboratories in new 4-story medical research building.	$485,000
Colorado: University of Colorado	1-story addition on medical school for cardiovascular research laboratories.	246,380
Georgia:		
University of Georgia	1-floor addition to medical school to provide cardiovascular research laboratories and animal facilities.	58,000
Grady Memorial Hospital and Emory University.	Remodeling to provide clinical cardiovascular research laboratories.	15,000
Illinois:		
University of Chicago	Clinical and laboratory research facilities in new hospital.	485,000
Michael Reese Hospital	Planning of cardiovascular research building	10,000
Northwestern University	Interior alterations and equipment for rheumatic fever research laboratories.	50,000
Kansas: University of Kansas	Clinical research facilities in hospital and part of laboratory facilities in medical science building.	100,000
Louisiana: Tulane University	Cardiovascular research laboratories in new 10-story medical science building.	485,000
Maryland: Johns Hopkins University	Part of cardiovascular research facilities in new outpatient and research building.	485,000
Massachusetts:		
Beth Israel Hospital	Portion of cardiovascular research facilities in new medical research building.	184,300
Harvard School of Public Health	Remodeling to provide laboratories for research in nutritional aspects of heart disease.	82,500
House of Good Samaritan	1-floor addition and remodeling for rheumatic fever research laboratories.	169,750
Massachusetts General Hospital	Construction of cardiovascular research laboratories in new research building.	485,000
Peter Bent Brigham Hospital	Part of construction of wing and remodeling for cardiovascular research laboratories.	242,500
Minnesota: University of Minnesota	Part of construction of 1 laboratory floor on heart hospital and construction of cardiovascular research laboratories in medical science building.	485,000
Mississippi: University of Mississippi	Construction of animal facilities	4,435
New York:		
New York University, Bellevue Medical Center.	Part of cardiovascular research facilities in new medical science building.	485,000
State University of New York Medical Center at Syracuse University.	Remodeling in medical school and university hospital to provide cardiovascular research laboratories.	140,650
North Carolina: Duke University	Part of construction of 4-floor addition to laboratory building.	43,605
Oklahoma: Oklahoma Medical Research Foundation.	Part of clinical research wing on research building	100,000
Pennsylvania:		
Children's Hospital, Philadelphia.	Cardiovascular research facilities in new 6-story research building.	373,450
University of Pennsylvania	1 floor for research laboratories in new diagnostic building.	320,100
Tennessee: Meharry Medical College.	Addition of 1 floor for clinical and laboratory research facilities and part of animal quarters.	172,330
Utah: University of Utah	Construction of cardiovascular research laboratories in City Hospital.	60,000
Wisconsin: University of Wisconsin	2-story addition to McArdle Research Building	291,000
		6,059,000

TRAINING PROGRAM

Mr. FOGARTY. In your opening statement you said:

We have, as a Nation, adopted by the force of logic and public opinion two policies: capable investigators to be supplied with the funds they need to exploit their ideas fully; additional manpower of high caliber should be trained to expand our national research capacity.

When did we start the training program? What year?

Dr. VAN SLYKE. I believe that started, in a small way, in 1938 with cancer research, Mr. Fogarty, and in fiscal year 1947 additional funds were made available for research fellowships. I think it was the year, but I may be wrong. I think it might have been fiscal year 1948.

Mr. FOGARTY. When we expanded this program, did we not at the same time establish a forward financing program for these trainees?

Dr. VAN SLYKE. No, sir; we have never had, to the best of my recollection, forward financing of any kind, except in the field of mental health.

Mr. FOGARTY. I knew we had it in some program, I had forgotten it was mental health. We only used forward financing for a few years, and then we discontinued it.

Dr. VAN SLYKE. Yes, sir; because we found our total amount each year was a double charge upon us.

Mr. FOGARTY. What do you mean by that?

Dr. VAN SLYKE. If the appropriation was $8 million and $1 million on contract authority, it would appear as if we had $9 million available to us. The next year, when we came in to get the cash to liquidate the contract authority, we would appear to be charged for it again in the total of the appropriations.

Mr. FOGARTY. As I remember, the argument used at that time was that it was difficult to get people to enter that field, unless they had a 2-year program that they could depend upon.

Dr. VAN SLYKE. You are correct, Mr. Fogarty. At that time, though, the evident national picture on continuing research training support was not so plain as it appears to be now.

TRANSFER OF BUDGET FOR PREDOCTORAL FELLOWSHIPS TO NATIONAL SCIENCE FOUNDATION

Mr. FOGARTY. That leads us back to the discussion that took place a while ago on the predoctorate fellowships. From the discussion, it seems to me that the Bureau of the Budget decided to take the $390,000 away from the Public Health Service and transfer it to the National Science Foundation, but for some reason these funds weren't used for the intended purpose. You are about 190 fellowships short, are you not, because of that action?

Dr. VAN SLYKE. Approximately 140, Mr. Fogarty.

Mr. FOGARTY. Could we not take care of that situation by adding $380,000 to the operating expenses of the Institutes of Health and say in our report that it should be expended for that purpose?

Dr. VAN SLYKE. Well, Mr. Chairman, we are here today just to defend the budget, and we are not requesting that.

Mr. FOGARTY. I know that, but I am asking you for information as to how we could do this as a committee.

As you know, I expect you to give us that information when I, or any member of the committee requests it, regardless of the position of the Department and the Bureau of the Budget.

Mr. BUSBEY. Would the gentleman from Rhode Island agree that if the committee decided to do it, it could do it?

Mr. FOGARTY. I want to get their opinion as to whether they think it can be done that way or if they need additional legislative authority.

Dr. VAN SLYKE. The answer is yes. I think it could be done.

Mr. FOGARTY. It could be done the way that I outlined?

Dr. VAN SLYKE. Yes, sir; but we are not here, Mr. Fogarty, to ask for that.

Mr. FOGARTY. I understand that, and I do not care what orders you are under from the Bureau of the Budget, or from the Secretary; when you appear before a congressional committee, if you know the

answer to a direct question, we expect you to give the answer. I hope that is very plain to all who testify before the Appropriations Committee. I do not care what the orders are which you receive from the Secretary of Health, Education, and Welfare; when a member of the committee asks you for information, if you know the answer, we expect that you will give it.

Mr. LARMON. Mr. Fogarty, may I say that I am sure the Secretary has given no such orders.

Mr. FOGARTY. I am just saying if that happens—and I do not want to get into an argument with you about what has transpired in the past week between the Secretary's Office and the Public Health Service with regard to these hearings because I happen to know. I couldn't help but overhear it out in the corridor here in one particular case.

What is the need for these predoctorates at the present time?

Dr. VAN SLYKE. Mr. Fogarty, as I said to the chairman, and other members of the committee, the predoctorate fellowships program would permit us to go back earlier into the scientific development of our people, and pick them up so we could lay out a course of development for them. If we had the predoctorate program, we could get these people when they are younger. We could also carry them on when they received their doctor's degree, because they are not then a competent scientific research worker. We could carry on their development through the postdoctorate development.

I also made the point previously that in the field of medical and biological research that it takes a lot more time for a person to come to fruition and for him or her to come to a place where they are really competent.

It is not quite the same in the natural sciences, where after a much shorter time a person is much more competent in, say, the field of physics, or mathematics.

Of course, our interest is directed toward promoting good health in this country, and more good health is promoted by good research development and research development is promoted, as Dr. Sebrell testified in his statement, by having more people capable of carrying on good medical research work.

So, if we do not get these people at a younger, more formative period in their lives, and encourage and stimulate them along the path of medical research and development, obviously we are not going to have nearly so good a chance when their minds are made up to follow other courses, at a later date.

SHORTAGE OF PSYCHIATRISTS AND NEUROLOGISTS

Mr. FOGARTY. Was not that brought rather forcefully to the attention of this committee by the people in the country who were interested in the mental health phase of public health a few years ago? I remember listening to many outstanding psychiatrists in the country who appeared before our committee. We were told of the dire need for psychiatrists and this committee that year, which I think was either 1947 or 1948, took definite steps to increase these appropriations and these training programs because of that testimony.

Dr. VAN SLYKE. That is my recollection, too.

Mr. FOGARTY. That was around 1947 or 1948. Mr. Keefe was chairman of the committee at that time, as I remember.

Dr. VAN SLYKE. Yes, sir.

Mr. FOGARTY. Now, we have information that since the enactment of legislation for the establishment of the Institute of Neurology and Blindness, that within the last couple of years there has been a dire lack of accredited neurologists in the country.

Is that not so at the present time?

Dr. VAN SLYKE. Yes, sir, and Dr. Sebrell so reported to the committee last year.

Mr. FOGARTY. In some States they did not have even one?

Dr. VAN SLYKE. That is right.

Mr. FOGARTY. That is, one who met the standard requirements for neurologists.

Dr. VAN SLYKE. That is right.

Mr. FOGARTY. How have these programs worked out? Are they beneficial, and have they been beneficial?

Dr. VAN SLYKE. They have been most valuable.

Mr. FOGARTY. Well, give us an example as to how they have proved their value?

Dr. VAN SLYKE. Well, in the field of mental health, Mr. Fogarty, they have been able, with the funds which this committee and the Congress have appropriated, to increase the numbers of people in training, who will become competent in the field of mental health. As has been reported to this committee repeatedly, there is a shortage in this area, and I think this committee could feel proud of the support you have given to increase the numbers of people competent in this area so that there are not only more people available for clinical work in mental health and State institutions, but there are more people competent to carry out research in this very complex area.

I do not want to get ahead of the subject in any way, Dr. Sebrell, but I think this committee will be interested in the development in the field of neurological research. Those developments came about either through tax funds, or through private sources, and young men and young women were permitted to go ahead and develop into competent research investigators.

I think this is, as Dr. Sebrell's statement points out, to the effect that people are the heart of this problem, and in this program, if we have the postdoctorate research fellowships where we had funds this year, and where we are asking for funds next year, perhaps more people will be available to do an ever-better job, and on the question of attrition as a result of age and the shuffling off of people, we have to take steps to replace them.

This committee, in its recommendations, has been most helpful in that manner.

ADVANCES IN FIELD OF HEART DISEASE

Mr. FOGARTY. On page 2, you say:

> Drugs have been developed which can stop often fatal arrhythmia-irregular heartbeats, and a more precise understanding of cardiac failure has permitted the development of more rational treatment. This latter advance has not only increased the life span of countless cardiacs, but has returned vast numbers to comfortable and profitable employment.

What is your definition of a "cardiac"?

Dr. SHANNON. Any one is a cardiac who has a disability of the heart. This would include such diverse conditions as a child with a rheumatic

heart involvement, a man with coronary artery disease, or a man with hypertensive heart disease. These are all lumped together under the generic term of "cardiac."

Mr. FOGARTY. It does not mean he has a serious case?

Dr. SHANNON. No, sir.

Mr. FOGARTY. I realize we do not have the Heart Institute here, but I am personally interested in that field myself. What advances have been made?

Dr. SHANNON. The first thing that Dr. Sebrell mentioned is a drug to treat fatal arrhythmia, i. e., irregular heartbeats. There has been a major contribution to control of this disease by the Heart Institute. This was the development of the drug procaine amide, which has the ability to stop irregularities of the heart, particularly if they arise in the ventricle. This does not sound like much in technical words, but let us look at what it means in terms of specific situations.

Frequently in coronary thrombosis, one dies from one of several causes—complete loss of blood flow to vital organs due to a high degree of irregularity of the pumping action of the heart, massive muscle involvement, and rupture of the heartwall.

The irregularities of the heart bear no relationship whatsoever to the size of the damage. The drug, procaine amide, has the ability to remove completely the possibility of a fatality due to this.

Another example—one of the major difficulties which the surgeon encounters in manipulating the heart, that, is when it is handled and cut, is the development of this same irregularity. In this case, the prior administration of the drug means the surgeon can freely enter the heart without that consequence.

Again, in certain types of anesthesia, particularly cyclopropane, death is occasioned by irregularities of the heart. It has become routine in anesthesia to administer procaine amide prior to the introduction of the anesthetic. The development of procaine amide is one of the contributions of the Heart Institute that we feel very proud of.

To turn to the other cardiac conditions—cardiac failure—this means the heart is unable to do the day-to-day jobs that are required of it. Until quite recently it was felt the primary point of attack in the management of heart failure was the heart. That seemed very logical. As it turned out—and again in investigations of the Heart Institute—the heart is only part of a three-way system that controls the efficacy of circulation. Probably the most important single factor has nothing to do directly with the heart, but only indirectly, that is, an inability to dispose of salt that accumulates in the body in the severe cardiac. This salt accumulates in the body, water is also retained, and a condition called dropsy develops.

It is now known that the inability to handle the usual salt intake is due to the oversecretion of adrenal hormones and the action of these on the kidney. An appreciation of this fact has lead to an increased understanding of the condition of so-called congestive heart failure and the more intelligent use of drugs called diuretics which aid the cardiac drugs by unloading salt through the kidneys. Such combination therapy keeps many people in profitable employment who would otherwise be in serious difficulty.

Those are some of the things Dr. Sebrell had in mind. We are very proud, because those are two areas where the Heart Institute has done highly effective work at Bethesda.

EFFECT OF MENTAL ATTITUDE ON HEART DISORDERS

Mr. FOGARTY. Now when you talk about returning to work and profitable employment, I suppose the mental attitude of the patient has a lot to do with his recovery, does it not?

Dr. SHANNON. Yes, sir.

Mr. FOGARTY. Is it more difficult for a person who has a coronary illness, who is working by the day, who has no salary but just gets paid when he works, and who has 5 or 6 kids to support—is it fair to say that his recovery may not be as quick as that of the fellow who has an income and does not have to worry about it and has no responsibility that he would have great difficulty in meeting?

Dr. SHANNON. If they could both undertake the same treatment, I would say no; but, unfortunately, the individual with the more modest income has great difficulty taking advantage of all of the advance that has been made in medicine. He is under pressure to return to his job and perhaps too early, too; instead of easing back into his position as he should from the medical standpoint, he is forced to come back rapidly, and this may cause serious difficulty. It causes difficulty in two ways. In the first place, it is hard on him; in the second place, when he returns to work and finds he is not capable of doing a good day's work, he is a distressed worker, and it is well known in the field of psychosomatic medicine that there is almost as much trouble from his mental difficulty as from his physical disability.

The man under economic pressure, who one ordinarily thinks of as being perhaps a little more rugged than the other individual, has the worst time from the standpoint of recovery. The man who can seek competent advice and treatment from people he respects is in a position where the physician can share a good part of his troubles. I would say the day worker has a very, very rough time.

I would like to say, going back to procaine amide, that you might be interested to know that Congressman Keefe was one of the early people to get the drug, and you may recall on a visit to Washington some 6 months later, he thought he was a new man. Congressman Keefe had, as one of his major difficulties, this cardiac irregularity.

Mr. FOGARTY. I have often thought of that. He was once chairman of this committee, and he had a lot of trouble and when I was chairman of the committee, I had a little trouble, so I hope our present chairman does not get too concerned about this job.

ADVANCES IN FIELD OF CERVICAL CANCER

Now in the field of cancer you say a positive, simple test for cervical cancer has been found. Is that something new?

Dr. SEBRELL. It is comparatively new. Since Dr. Heller, Director of the Cancer Institute is here, perhaps he can give you the detail on that. It is a very wonderful thing and offers very great promise and, if you wish——

Mr. FOGARTY. No; I will wait.

ARTHRITIS AND RHEUMATISM

Now in the field of arthritis and rheumatism, what is the history of ACTH and cortisone? Are they as promising today as they were a couple of years ago in the treatment of arthritis and rheumatism?

Dr. SEBRELL. Well, I think we might answer that somewhat this way, Mr. Fogarty. Whenever any new drug is introduced, there is always great enthusiasm and great expectation for it that most of the time exceeds what the drug actually will do. I think there is a very natural human reaction. You hope you have hit on some panacea, always. And it is usually, with experience, that the product settles down to a place of proven fact that very frequently is not as great as you originally expected.

With cortisone and ACTH, these, especially cortisone, has proven to be a very valuable drug and we see great use not only in arthritis, but many other conditions for it. Nothing was known about this use originally and in general it is well known that it is no cure for arthritis; it does not cure arthritis at all. It relieves the symptoms enough so that many people are capable of working in activities and they are relieved of pain and lead more useful lives than they could without the drug. On the other hand, it has turned out to be very valuable in some other diseases and has really exceeded the expectations in 1 or 2 places. It has turned up to be very beneficial in eye diseases and allergies and I think the ultimate value of that drug has not even yet been determined. We are learning more about it all the time. It has very, very wide effectiveness.

Mr. FOGARTY. How about the cost of this drug? Is it coming down year by year?

Dr. SEBRELL. The cost has come down very considerably from its original price. There are some competing manufacturers now. When originally produced, there was a great shortage of it; now I think there is plenty available. I do not know the current price.

Mr. FOGARTY. Are we still getting it from the same source, or has some synthetic source been developed?

Dr. SEBRELL. There has been developed a synthetic source for it now. You know the original material, I believe, was prepared from the bile of cattle and this was a limited source. There has now been found a plant material that can be converted into cortisone, and also a synthetic method for it by the use of fermentation of a microorganism.

PROGRESS IN STAFFING CLINICAL CENTER

Mr. FOGARTY. How are you progressing with the staffing of the Clinical Center? Is that progressing according to your plans?

Dr. SEBRELL. Yes, Mr. Fogarty, it is. As I mentioned in my introductory testimony, the construction delays required us to set back our recruitment in consideration of the space that could be made available for the people; so that we delayed the recruitment to meet the release of space and we expect now to catch that up and are catching it up as space is turned over to us. And by the end of this fiscal year, we expect to have practically all of our research people planned for this year employed

CLINICAL CENTER OCCUPANCY

Mr. FOGARTY. How many beds do you expect to have filled as of July 1 this year?

Dr. SEBRELL. As of July 1 this year, we expect to have between 200 and 250 beds opened and available for use. We expect to maintain something approximating 80-percent occupancy, as we are doing

today. We have 200 beds open today and in those beds we have, varying from day to day, from 163 to about 153 patients. They go up and down a little bit, but they are approximating 80 percent occupancy.

And I mentioned the difficulties in the Mental Health Institute in maintaining such occupancy because of special problems. But we expect to maintain approximately this level.

Mr. FOGARTY. How many beds do you expect to be using by the end of the next fiscal year, July 1956?

Dr. SEBRELL. With this budget as presented to you, if this is adopted, we should be able to go to 350 beds by the end of the next fiscal year.

CLINICAL CENTER RELATIONSHIP WITH PRIVATE MEDICAL PROFESSION

Mr. FOGARTY. You say:

> One of the most important elements of our work related to the Clinical Center has been the establishment of good working relations with physicians in private practice, professional groups, and medical institutions.

Have you found any serious problems with private physicians in getting patients into the Clinical Center?

Dr. SEBRELL. No; we have not. We have had exceptionally good relations with the medical societies and with private practitioners. Our cases are obtained by reference from practitioners, or by referral from practitioners and we have very cordial relations with them. They look on us as being an asset and help to them and, of course, we try to foster that by having individual physicians who are interested in patients come to the Clinical Center to see them. And, of course, when a patient leaves the Clinical Center, we try to turn him back to his physician at home.

I think we enjoy not only the individual physician's confidence, respect, and support; but the official support of the medical societies. This is partly due, I guess this in large measure is due, to the very high quality of the professional men we have and have been able to get for these research jobs. We have some of the country's outstanding men and, in addition to that, in connection with our research that we are doing, as I have indicated to this committee I thought was necessary for good research, we are doing a very high quality of medical care as part of the research procedure. The patient who comes to us in the course of his research gets the best treatment it is possible to give him, because this is part of good research. And the physicians respect this and it is of value to them, and it is essential that we continue to do this sort of thing, so that we do maintain the respect of the physicians. When he sends a patient to us, he has the greatest confidence in us. He knows that the patient is going to get the best modern medicine can do for him in terms of research and advanced procedure and I think our whole future depends on this kind of relationship.

DIFFICULTIES DUE TO FEDERAL PAY SCALE

Mr. FOGARTY. It seems to me you would have a great deal of difficulty getting competent men at salaries that are paid.

Dr. SEBRELL. We have had difficulty and I expect we will continue to have difficulty, because the salaries that the Government pays are

much lower than these men could earn if they chose to try to make all the money they could make. But fortunately we have found people—there are a considerable number of professional people who value an opportunity to do research, and they devote their lives to medical research and they do this at a personal sacrifice financially by coming with us. Even at the supergrades, of which we have several and more of which are under current consideration, I believe, this level of income, as good as it is judged by Federal standards, still represents considerably less than most of our people could earn and that some have given up in order to come and work with us. With this research atmosphere and the quality of the facilities which this committee and the Congress has provided out there, they recognize this is becoming one of the world's great medical institutions and they are proud to be associated with it and they get their satisfaction out of life by contributing to medical research, rather than trying to make all of the money they can make.

It is really a source of great satisfaction to me to see these men come to us at a financial sacrifice in order to work at Bethesda.

NEED FOR RENOVATION OF LABORATORY SPACE

Mr. FOGARTY. Doctor, as the space in the Clinical Center becomes available for use, what happens to the Institutes' old buildings? Are we going to have some buildings available?

Dr. SEBRELL. I mentioned the need for renovating the laboratory buildings. You must remember the Clinical Center is not and never was intended to be a substitute for laboratory research. This was clinical research that we added to our laboratory research area. So when we vacate these buildings, we are making reallocations of the projects and shifting things around. But it would be the greatest mistake in the world to curtail laboratory research in order to do clinical research, because these two things are closely integrated.

Mr. FOGARTY. I am not suggesting that you curtail the laboratory work; I am trying to find out what is happening in those old buildings.

Dr. SEBRELL. We are renovating the laboratory buildings insofar as we can and continuing laboratory research in them. They were grossly overcrowded, you know, for a long while.

Mr. BUSBEY. Mr. Fogarty and I noticed that overcrowding when we were out there and visited the buildings. I did not see how they could move around in many of the buildings.

Mr. FOGARTY. Do you have to have a real remodeling program, or what?

Dr. SEBRELL. I think Dr. Shannon might give you some details on that.

Dr. SHANNON. This has given us very serious concern and Dr. Sebrell asked me to make a study of the situation during the past 2 or 3 months. It turns out that to provide facilities for some new functions which will have to support the overall clinical operation and provide facilities that were not anticipated prior to the establishment of the Neurological Institute and Arthritis Institute, we have to modify four of our existing buildings.

This modification involves facilities for six of the Institutes. It is one of the problems that Dr. Sebrell pointed out in commenting on his opening statement. We have had discussions as to how to handle

this with both the Public Health Service and the Department, because we do not have money at the present time to do it. I should not say that; we have the money and we have the authority, but we have them in the wrong places. We have an escalation authority to the extent of roughly $1,500,000 in stage 1 of our Clinical Center operation. We calculate the reconstruction of those facilities will be of the order of magnitude of $850,000. We anticipate savings in operating funds this year to the extent of seven or eight hundred thousand.

Space revision can only be done after the scientists are moved out of some of these areas, and cannot be done with this year's money, even though we have authority to spend the seven or eight hundred thousand dollars for remodeling purposes. So that we hope with the concurrence of the Department to forward to this committee a frank, detailed analysis of the situation we find ourselves in and ask them if they will help to satisfy what we feel to be a very essential need by adjusting either how we can spend one sum, that is, the savings from operating funds, or recommending that we make use of some of the escalation authority which we already have, but which we would not propose to use without prior consultation although we do have the legal right to use it, without the concurrence of this committee.

Mr. FOGARTY. How many buildings do you expect to have to remodel?

Dr. SHANNON. Four, sir.

Mr. FOGARTY. Which ones are they?

Dr. SHANNON. Building 3 is largely being remodeled for the Heart Institute; building 2 is being remodeled largely to satisfy the needs of the Dental Institute and Arthritis; building 8 is being remodeled primarily to satisfy the needs of cancer, arthritis, and neurology, and building T–10 largely for neurology, and there is minor work elsewhere but that does not give us the concern that the larger ones do.

Mr. FOGARTY. How much do you estimate those repairs would cost?

Mr. SHANNON. My current estimates are they will come to some $850,000.

POSSIBILITY OF FINANCING OUT OF SAVINGS

Mr. FOGARTY. Where is this saving you made? You say you made a saving?

Dr. SHANNON. As Dr. Sebrell pointed out, our inability to provide facilities for some of the scientific personnel planned for the early part of this year suggested it was only wise management to defer the hiring of a number of individuals before such facilities were available. These people are just beginning to come in now. Our savings are attributable to the lack of suitable facilities for the personnel authorized in our budget and those savings represent the funds for personnel services in part and also the funds which would have been used to support those people had they been taken on.

Mr. FOGARTY. You have authority in the law now to go ahead and remodel with those savings?

Dr. SHANNON. We have authority under the stage 1 of the current construction program. We found ourselves in difficulty because of the increase in cost since 1950. However we would not want to use escalation authority without the concurrence of this committee and the Bureau of the Budget. There is still $1,511,591 available, although

cash has not yet been appropriated. In other words, it remains a contract authorization, as a result of our escalation of stage 1.

This is in a report that we made to the committee on February 1, 1954, where we pointed out some difficulties, and said that we would like to confer with the committee.

As we said, here, we are completing our study of this problem, and will want to discuss it with the committee very shortly.

Mr. FOGARTY. Mr. Chairman, would you want to put this report into the record?

Mr. BUSBEY. Yes; I think we had better put this in the record. Would you like it inserted at this point?

Mr. FOGARTY. Yes, sir.

(The matter referred to is as follows:)

CONSTRUCTION OF RESEARCH FACILITIES, PUBLIC HEALTH SERVICE

The budget for the appropriation "Construction of research facilities, Public Health Service," reflects no new request for either contract authority or liquidating cash in 1955. Prior year balances $3,661,591 ($2,150,000 in cash and $1,511,591 in contract authority) remain available for obligation in 1955. We propose to use $300,000 of the cash in 1955, to purchase and install equipment in the Clinical Center, and to carry over the obligational authority for the remaining $3,361,591 through the fiscal year 1956. Since last year's hearings, there has been an accumulation of construction and program delays. Although the building and its fixed equipment is now between 90 and 95 percent complete, the present schedules for completing and outfitting the remaining 5 to 10 percent will involve obligations well into 1956.

The deferred amounts break down into two categories:

1. *Contract authorization:*			
(*a*) Unused escalation authority on construction			$1,511,591
2. *Appropriation:*			
(*a*) Subsequent year requirements for purchase of land and structures	$500,000		
(*b*) Subsequent year requirements for procurement of Clinical Center equipment	1,350,000		
			1,850,000
Total			3,361,591

The following three headings outline why it is important to keep these amounts available for obligation in subsequent periods, the unused escalation authority for construction contingencies, $500,000 to be able to negotiate for the purchase of land and structures included in the original plan, and $1,350,000 for the gradual procurement of laboratory and clinical equipment to tie in with actual staffing plans for the Clinical Center.

UNUSED ESCALATION AUTHORITY

The escalation authority under the construction appropriation was provided to offset increases or decreases in construction costs occurring after the funds were initially appropriated. Congress thereby assured that fluctuating costs would not retard or curtail the construction program as outlined to and approved by the Congress in 1948.

Because of rising prices, the escalation provision has resulted in making available approximately $4 million above the estimated cost of construction at the 1948 price level. At last year's hearings before the House subcommittee, NIH officials stated that they believed the new construction program could be completed using only $2,500,000 of the $4 million escalation authority. NIH still feels this can be done, without calling upon the balance of $1,500,000 in escalated-contract authority. Contingencies, including the correction of unforseen mechanical defects with the Clinical Center building (vibration, air flows, etc.) and the possibility of further price increases in construction costs for the $3 million in contracts still to be let make it important that we retain part of the unused escalation authority until the total project is completed.

As much as $1 million to $1,200,000 of this authority could be rescinded at this time, were it not for some perplexing problems relating to alteration and repairs of existing buildings as authorized in the 1949 Research Facilities Appropriation Act, but which we believe should be discussed in advance with the committees of Congress. This problem relates to relocation of our scientific laboratories and the move into the Center. We are completing our study of this problem and will want to discuss it with the committee very shortly

PURCHASE OF LAND AND STRUCTURES

The amount of $500,000 has been earmarked in the clinical center construction project to complete the original purchase of land for NIH, which would include acquiring the convent buildings and 9.6 acres of surrounding ground. This particular piece of land was included in the original proposal for which the Congress made an initial appropriation of $3,500,000 for site, acquisition and planning. This plot of land is an integral part of the site development since it is bounded by NIH property on three sides and by Old Georgetown Road on the other, and is necessary to assure an adequate buffer zone between laboratories and the surrounding community. It would be very important to the Government to acquire the property should it become available for other than church use. If these funds are kept on the present basis of immediate availability, we would be able to negotiate actively for the purchase should there be any change in the church's present interest in retaining the property.

PURCHASE OF EQUIPMENT

A total of $9,635,540 was appropriated in 1951 and 1952 to supply and equip the clinical center and the related auxiliary structures provided for under this appropriation account. As pointed out in previous years, this sum was to provide for all items of equipment (other than the fixed equipment included in the construction contracts), plus an initial warehouse inventory of expendable supplies and common-use items of equipment.

By the end of the current fiscal year, procurement action will be substantially complete on most common-use supply and equipment items necessary to meet 1954 staffing needs. The remaining appropriation balances will be used primarily for specialized kinds of laboratory and clinical area equipment. Procurement timetables will continue to be tied in with the actual staffing plans for laboratory and clinical areas in the center. Any substantial amount of advance procurement on specialized equipment of a tailormade nature would create either a danger of obsolescence or lead to the buying of the wrong kinds of special-purpose equipment for the individual needs of future research staff. In view of these factors, and since no new research positions are provided in the 1955 estimates, $1,350,000 is deferred for gradual procurement action in succeeding years in line with the ultimate staffing plans for operation of the remaining areas in the center.

Dr. SHANNON. What we would, of course, do, Mr. Fogarty, would be to continue our discussions which have already been initiated with the Public Health Service, and at the Department level, and contact you through our normal channels.

Mr. FOGARTY. As I understand it, you have the authority now in existing law?

Dr. SHANNON. Yes, sir.

Mr. FOGARTY. You have a savings now of some $700,000, or $800,000 this year?

Dr. SEBRELL. It will run, approximately, that.

Mr. FOGARTY. You have that because you are holding back on the staffing of the clinical center?

Dr. SEBRELL. Yes, sir.

Mr. FOGARTY. The committee could, if it chose, transfer those funds or allow those funds to be expended for the purpose of remodeling these buildings, I presume?

Dr. SEBRELL. Yes, sir.

Mr. FOGARTY. You have looked into this, Dr. Shannon? Do you know whether it could be done, or would you have to have a change in the law?

I do not know, myself.

Dr. SHANNON. It could be done in one of several ways, but what way would be best, I do not think that we would be ready to recommend at the present time.

The study was completed early last month, at the time this was submitted, and it is just recently that we have been able to discuss this with the Department. I would rather have further discussions with them, sir.

Mr. FOGARTY. Well, that would be all right except that I am afraid we will not hear any more about it until we conclude our hearings.

Dr. SEBRELL. Mr. Fogarty, I think we could work this out with the committee staff, and with the Department, through the regular budget channels, as to what might be the best way to do it, or how it might be handled.

Mr. LARMON. Mr. Fogarty, could I ask a question?

Mr. FOGARTY. Surely.

Mr. LARMON. Is it not more proper for it to come through the Department after discussions with the Bureau of the Budget?

Obviously, the committee could do anything it wished, but is not that more proper?

Mr. FOGARTY. Yes, sure; but I was hoping they would not forget about it.

Mr. BUSBEY. It should be done before we mark up the bill.

Mr. FOGARTY. That is what I mean. If we could have your advice by the time we conclude the hearings, it would be fine. I was looking for that type of answer.

DIFFICULTY IN SEPARATING BUDGET INTO CLINICAL AND LABORATORY COMPONENTS

In your statement on page 15 you say:

> It would, for example, be most difficult for us to conduct studies most effectively if our budget were arbitrarily divided into clinical and laboratory components, and this compartmentalization were carried over into program operation. There is a good deal of work that is purely clinical or purely laboratory, but there is also the vital area—at the heart of the concept of the clinical center—where freedom to move in either direction is essential.
>
> We are most appreciative that the congressional budget gives us this degree of freedom, and we intend to show by results that the action is wise.

You already have that freedom.

Dr. SHANNON. I think the reason why that is done, Mr. Fogarty, is that we have difficulty in presenting our operation and in getting complete acceptance by people of the concept that this is not a hospital, and that this is a research facility.

Attached to the research facility are a large number of laboratories which, on the one hand, service patients and, on the other hand, service other lines of research, and the research operator at times may spend essentially all his time in the clinical area, and at other times expend practically all his time in the laboratory area, and this work in research and development, as Dr. Sebrell has said, is at the heart of our concept of how the facility can be best made use of.

Now, as these budgets are defended—not this one, but as we defend budgets for the clinical center over the past 4 or 5 years—at times we

have been asked to consider breaking out clinical investigations, or breaking out laboratory investigations, and we are very glad to report that we have done our best to do it, to show the order of magnitude, at times.

I think we have convinced those of us who were a little critical of this type of fluidity that this was the only way the Medical Center can pay off.

Mr. FOGARTY. Well, you have never had any trouble with this committee with that problem?

Dr. SHANNON. No, sir.

Mr. FOGARTY. Have you had trouble with the Bureau of the Budget?

Dr. SHANNON. Well, by and large, the Bureau of the Budget this year has bought our point of view, and the budget which we submit is in support of this concept, and it is so close to our thinking as to the essentiality of the operation that I think every time we have the opportunity, we call it to the attention of every group with which we deal.

Mr. FOGARTY. I thought the committee has always, in the past, gone along with this program.

Dr. SHANNON. Yes, sir; it has.

CATEGORICAL APPROPRIATIONS FOR NIH

Mr. FOGARTY. I also remember that the Bureau of the Budget had suggested previously that we should get rid of these categorical grants, and I have never been in favor of that.

It was my impression that when these Institutes were created by law that they were to bring to the attention of the people the fact that this problem existed, and that something should be done about arthritis, rheumatism, cancer, heart, and mental health, and so on.

We had them set out as categories, so that we would know how much was being done in each field. That is the reason that we recommended 2 or 3 years ago setting out Arthritis and Metabolic Diseases and Neurology and Blindness Institutes so we could see how much is being expended in each.

Dr. SHANNON. I think they have been very effective in calling the people's attention to these broad medical areas, and problem areas.

Mr. FOGARTY. Dr. Sebrell, I noticed somewhere in your report that you stated since the Neurology and Blindness, and Arthritis and Metabolic Diseases Institutes were set up, that they had focused public attention upon the problems through the national organizations, and that States and private expenditures have been rising along with Federal expenditures.

Dr. SEBRELL. That is correct.

As a result of the Neurological Institute, and the Arthritis Institute, that has applied a special interest and focal point.

When our Institute people began to cooperate with the voluntary foundations, they have given additional support, and we go along together in doing a more effective work in the field.

TEACHING AND TRAINING GRANTS

Mr. FOGARTY. On page 18, where you deal with teaching and training grants, you say the level of the program will be reduced in fiscal year 1955, about 10-percent below the 1954 level

Dr. SEBRELL. That is correct.

Mr. FOGARTY. What is the reason for that?

Dr. SEBRELL. That is primarily in the mental health field, I believe. The reduction is in that program.

This is a decision in which we participated as being the most desirable decision within the limitations under which we are working, and this is one in which Dr. Felix, the Director of the Mental Institute, of course, had hearty concurrence.

Mr. FOGARTY. In other words, you picked out the mental health program to take the cut, so far as teaching and training grants are concerned, to come within the overall ceiling which you had given to you?

Dr. SEBRELL. They still have a lot in this field—a large program.

Mr. FOGARTY. How much are you cutting them?

Dr. SEBRELL. $500,000.

Mr. FOGARTY. $500,000 in mental health?

Dr. SEBRELL. Yes, sir.

Mr. FOGARTY. I was led to believe in the past 4 or 5 years that mental health was one of our toughest problems, and that this was an area that really needed training and teaching grants.

Dr. SEBRELL. Well, I think you can take the whole field of medical research most anywhere, and say that more money could be profitably spent in it.

I think this holds true for heart disease, and for cancer. Their teaching grant programs are cut $266,000 and $130,000, respectively.

When people like Senator Taft and General Vandenberg die from a disease that we do not know the cause of, and cannot much do anything for, it is certainly quite obvious that money could be spent in research in that field, or in other fields, and when we have people who are asking for money in those fields.

But, there is another side to a budget problem. I think our programs are worthwhile, or I would not be here in this job, but the second part of the question is: whether or not this is the source from which the funds could come, or whether or not this is the time, and whether or not the Federal economy can stand it, and what are the relative needs of the various governmental departments.

These are questions which I am not an expert in. I think this is a good, sound budget, and we have made cuts, where indicated, in which the people concerned think they will give an effective, efficient operation.

Mr. FOGARTY. Do you think you can meet all the needs with this $3,376,000?

Dr. SEBRELL. I do not think we could meet all the needs or all the demands in this or any other of these fields, but there are other sources of money other than Federal money, and I do not know that we will ever meet all the demands in fields of this kind, because there always seems to be something to be done ahead of you in the field of research.

Mr. FOGARTY. That cut was in training grants; was it not?

Dr. SEBRELL. Yes, sir.

Mr. FOGARTY. Just what are those training grants for?

Dr. SEBRELL. They are for training in the field of mental health. I think Dr. Van Slyke could explain them to you, or Dr. Felix, in more detail, when we take up the mental health budget.

Dr. Van Slyke can answer part of it.

Dr. VAN SLYKE. In brief, Mr. Fogarty, these two budgets are to help the schools improve their departments of psychiatry and to provide assistance to the trainees who are taking the courses.

Mr. FOGARTY. From which program are you taking the money?

Dr. VAN SLYKE. I would say it is probably going to come out of the training stipend—a portion of it—because the schools have minimum demands, and you cannot hire seven-eighths of a man to do a job.

Mr. FOGARTY. It is going to be taken away from the grants to the schools for teaching?

Dr. VAN SLYKE. Well, all the money is given in grants to the schools, and then they improve their departments of psychiatry and, with the balance of the funds, provide stipends for trainees, and people taking these courses.

So, the one-half million dollars will have to come out of the grants to the school program.

AMOUNT OF TEACHING GRANT PER SCHOOL

Mr. FOGARTY. You say "grants to the schools." You give teaching grants in cancer in the amount of $25,000 to each of the 4-year medical schools in the country?

Dr. VAN SLYKE. That is right, Mr. Fogarty.

Mr. FOGARTY. What is the situation with respect to heart?

Dr. VAN SLYKE. The same is true with heart.

Mr. FOGARTY. Do you give $25,000 instead of $14,000, that it used to be?

Dr. VAN SLYKE. Yes, sir.

Mr. FOGARTY. How much money do you give to each of the schools, and how many schools do you give grants to for mental health?

Dr. VAN SLYKE. I am sorry, but I am not prepared to answer that this morning, but we can supply it for the record, or Doctor Felix can give it to you when he comes up.

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. Yes.

DEFINITION OF VARIOUS TYPES OF GRANTS

Mr. BUSBEY. Doctor Sebrell, I think it would be very helpful to the committee if you would supply for the record a definition and explanation for these different grants. I am sure there has been a little confusion on my part and since Mr. Fogarty has been exploring it further, it seems that there are some points that are not completely clear to him.

Dr. SEBRELL. I would be very glad to do so, Mr. Chairman.

That is, you want an explanation of what a training grant is, and what a teaching grant is?

Mr. BUSBEY. Yes, for each of these various grants.

Dr. SEBRELL. I would be glad to do that.

Mr. BUSBEY. I think it would be very helpful, do you not, Mr. Fogarty?

Mr. FOGARTY. Yes, sir; I do.

(The matter referred to is as follows:)

DEFINITIONS—NIH GRANT ITEMS

Research grants: Grants to non-Federal research institutions and individuals in support of research in medical and allied fields.

Research fellowships: Grants to outstanding students and scholars to stimulate and encourage interest in research careers in the medical and allied sciences.

Teaching grants: Grants to approved professional schools to coordinate and improve teaching in the fields of cancer and heart disease.

Training stipends: Grants to graduate physicians to further specialized medical and clinical training in the diagnosis and treatment of such diseases as cancer, heart, arthritis, and neurological disorders.

Training grants: Grants to approved professional institutions to provide both teaching and graduate training in mental, neurological, and related disease fields. These training grants represent a combined teaching grant and training stipend program as opposed to the separate programs for these two items carried in the cancer and heart appropriations.

Grants to States: Grants in aid to State and Territorial health departments to establish and conduct cancer, heart, and mental health control programs within their jurisdictions.

Special control project grants: Funds made available on a project basis to institutions, professional organizations, teaching centers, and nonprofit health groups to carry out special studies concerned with the application of information and knowledge obtained from basic research to human population groups and leading toward the early discovery, diagnosis, and treatment of cancer.

Mr. FOGARTY. I have just one more question, Mr. Chairman.

What did you do with this $500,000 that you took from Mental Health?

Dr. SHANNON. May I answer that, Mr. Fogarty?

Mr. FOGARTY. Yes.

Dr. SHANNON. Without identifying the $500,000, but just looking at the total budget, there has been an increase in the direct operations. That increase is due to the need for funds to carry 250 beds on a full year basis, and the need for the increase from 250 beds to 350 beds by July 1 of the following year; 50 of those patients will be added in October, and 50 will be added in January.

So, the direct operations have increased, and that is, roughly, equal to the decrease in the grant operation.

Mr. FOGARTY. Does that mean that in fiscal year 1956, in order to bring the operation of the new clinical center up to 500 beds, you are going to take off $600,000 or $700,000 from cancer, or heart.

Dr. SEBRELL. I do not know what we are going to do in 1956. This is a matter for discussion with the Department and the Public Health Service, and all the factors concerned.

We have not worked on this problem yet.

Mr. FOGARTY. Well, personally, I am not going to go into this any more until Dr. Felix comes up here, but for the past 5 or 6 years outstanding people in the mental-health field from all over the country have told us of the dire need for training in this field and it is incomprehensible to me that these people will go along with a cut in this fund of $500,000. I cannot understand it, but I am not going to pursue that point any further now. However, I will later on, and I hope that when we have some of these outside witnesses, we will compare the judgment that dictated this cut against the judgment of these outside

witnesses, and that we will ask them to give us their professional opinion on such a cut as this in the field of mental health.

That is all, Mr. Chairman.

Mr. BUSBEY. Mr. Fernandez?

Mr. FERNANDEZ. I have no questions, Mr. Chairman.

Mr. BUSBEY. Doctor, when I visited the hospital at Lexington, Ky., this summer, I noticed that they were making quite a bit of furniture for the clinical center in the shops down there.

Briefly, tell the committee about the furniture that is made down there for the clinical center.

Dr. SEBRELL. Well, that furniture was made under a contract agreement, I believe.

Dr. Shannon can give you further details on that.

Dr. SHANNON. At Lexington, one of the problems they have is the rehabilitation of the patients, and one of the more effective ways to rehabilitate patients is to teach them a trade so that when these drug addicts—particularly the drug addicts—are released, and are returned to their communities, they have the wherewithal to make a living.

One of the jobs down there is the furniture job, and they have to have some outlet for furniture, and, by and large, it is the work of trainee labor working under close instruction. Any Government agency can contract with the Lexington hospital for the acquisition of furniture.

Actually, in dollars and cents, it turns out to be a lower cost than a comparable article, which you would purchase on the open market. So, on the Lexington side of the matter it is a vocational rehabilitation, and on our end it is a very economical way to acquire furniture.

Mr. BUSBEY. I do not recall the name of the man in charge of the furniture shop, but I was very greatly impressed with the fine work he was doing there in the shop with these drug addicts, and the quality of the work that they were turning out. It was beautiful.

Dr. SHANNON. The quality of the work is superb.

Dr. SEBRELL. I think we have gotten some very nice furniture that came from that hospital. It compares with commercial quality material, I believe, and there is some saving of money to us by buying it there.

Mr. BUSBEY. If there are no further questions, gentlemen, we thank you very much.

Dr. SEBRELL. Thank you, Mr. Chairman.

FRIDAY, APRIL 9, 1954.

NATIONAL CANCER INSTITUTE

WITNESSES

DR. JOHN R. HELLER, DIRECTOR, NATIONAL CANCER INSTITUTE
DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. C. J. VAN SLYKE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. LEONARD A. SCHEELE, SURGEON GENERAL
ROY L. HARLOW, CHIEF FINANCE OFFICER
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$17,887,000	$20,237,000	$19,730,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		2,375	
Transferred to—			
"Salaries and expenses, Food and Drug Administration, Department of Health, Education, and Welfare," pursuant to Public Law 170		−19,800	
"Salaries and expenses, hospital construction services, Public Health Service," pursuant to Public Law 452	−12,000		
"Service and supply fund, Public Health Service," pursuant to Public Law 170		−108,400	
"Salaries and expenses, Office of the Secretary of Health, Education, and Welfare," pursuant to Public Law 170		−1,400	
"Salaries and expenses, Office of the General Counsel, Office of the Secretary of Health, Education, and Welfare," pursuant to Public Law 170		−5,000	
Adjusted appropriation or estimate	17,875,000	20,104,775	19,730,000
Reimbursements from other accounts	19,844		
Total available for obligation	17,894,844	20,104,775	19,730,000
Unobligated balance, estimated savings	−1,265,260		
Obligations incurred	16,629,584	20,104,775	19,730,000
Comparative transfer to—			
"Hospitals and medical care, Public Health Service"	−174,960		
"Neurology and blindness activities, Public Health Service"	−139,330		
"Salaries and expenses, Office of the Secretary of Health, Education, and Welfare"	−15,966		
"Salaries and expenses, Office of the General Counsel, Office of the Secretary of Health, Education, and Welfare"	−2,800		
Total obligations	16,296,528	20,104,775	19,730,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
1. Grants:			
(a) Grants for research and training:			
(1) Research projects	$4,778,801	$7,369,000	$6,700,000
(2) Research fellowships	624,482	750,000	625,000
(3) Teaching of medical subjects	1,545,660	2,355,000	2,225,000
(4) Training stipends	499,530	500,000	500,000
(b) Grants for detection, diagnosis, and other control services	3,009,416	2,250,000	2,250,000
(c) Grants for special control projects	899,288	1,100,000	1,100,000
2. Direct operations:			
(a) Research	4,170,719	4,923,775	5,514,000
(b) Other direct operations:			
(1) Technical assistance to States	349,371	393,000	393,000
(2) Review and approval of research and training grants	94,658	135,000	107,000
(3) Administration	304,759	329,000	316,000
Total direct obligations	16,276,684	20,104,775	19,730,000
Obligations Payable Out of Reimbursements From Other Accounts			
2. Direct operations: (a) Research	19,844		
Total obligations	16,296,528	20,104,775	19,730,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
PUBLIC HEALTH SERVICE			
Summary of Personal Services			
Total number of permanent positions	608	652	619
Full-time equivalent of all other positions	10	14	14
Average number of all employees	589	605	611
Average salaries and grades:			
General schedule grades:			
Average salary	$4,704	$4,670	$4,678
Average grade	GS-6.7	GS-6.5	GS-6.5
Crafts, protective, and custodial grades:			
Average salary	$2,853	$2,877	$2,877
Average grade	CPC-3.3	CPC-3.3	CPC-3.3
Personal service obligations:			
Permanent positions	$2,701,961	$3,006,916	$3,046,336
Other positions	55,363	73,062	71,062
Regular pay in excess of 52-week base	9,539	9,874	9,814
Payment above basic rates	12,527	12,360	12,350
Total personal service obligations	2,779,290	3,103,212	3,139,562
Direct Obligations			
01 Personal services	2,768,633	3,103,212	3,139,562
02 Travel	72,121	81,700	81,700
03 Transportation of things	21,914	19,600	19,600
04 Communication services	20,272	23,975	24,300
05 Rents and utility services	333		
06 Printing and reproduction	60,727	71,200	71,200
07 Other contractual services	197,273	93,200	127,500
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	1,413,447	1,978,500	2,435,950
08 Supplies and materials	213,478	272,400	268,600
09 Equipment	117,485	167,000	165,300
11 Grants, subsidies, and contributions	11,357,177	14,324,000	13,400,000
13 Refunds, awards, and indemnities	190	500	500
15 Taxes and assessments	6,833	10,350	10,950
Subtotal	16,279,883	20,115,637	19,745,162
Deduct charges for quarters and subsistence	5,198	10,862	15,162
Total direct obligations	16,274,685	20,104,775	19,730,000

Obligations by objects—Continued

Object classification	1953 actual	1954 estimate	1955 estimate
PUBLIC HEALTH SERVICE—continued			
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	$10,657		
03 Transportation of things	59		
07 Other contractual services	634		
08 Supplies and materials	4,650		
09 Equipment	3,844		
Total obligations payable out of reimbursements from other accounts	19,844		
Total obligations	16,294,529	$20,104,775	$19,730,000
ALLOCATION TO DEPARTMENT OF COMMERCE			
07 Other contractual services	1,999		
SUMMARY			
Summary of Personal Services			
Total number of permanent positions	608	652	649
Full-time equivalent of all other positions	10	14	14
Average number of all employees	549	605	611
Average salaries and grades:			
General schedule grades:			
Average salary	$4,704	$4,670	$4,678
Average grade	GS-6.7	GS-6.5	GS-6.5
Crafts, protective, and custodial grades:			
Average salary	$2,853	$2,877	$2,877
Average grade	CPC-3.3	CPC-3.3	CPC-3.3
Personal service obligations:			
Permanent positions	$2,701,961	$3,006,916	$3,046,336
Other positions	55,363	74,062	71,062
Regular pay in excess of 52-week base	9,439	9,874	9,814
Payment above basic rates	12,527	12,360	12,350
Total personal service obligations	2,779,290	3,103,212	3,139,562
Direct Obligations			
01 Personal services	2,768,633	3,103,212	3,139,562
02 Travel	72,121	81,700	81,700
03 Transportation of things	21,914	19,600	19,600
04 Communication services	20,272	23,975	24,300
05 Rents and utility services	333		
06 Printing and reproduction	60,727	71,200	71,200
07 Other contractual services	199,272	93,200	127,500
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	1,413,447	1,948,500	2,435,950
08 Supplies and materials	243,478	272,400	268,600
09 Equipment	117,485	167,000	165,300
11 Grants, subsidies, and contributions	11,357,177	14,324,000	13,400,000
13 Refunds, awards, and indemnities	190	500	500
15 Taxes and assessments	6,833	10,350	10,950
Subtotal	16,281,882	20,115,637	19,745,162
Deduct charges for quarters and subsistence	5,198	10,862	15,162
Total direct obligations	16,276,684	20,104,775	19,730,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	$10,657		
03 Transportation of things	59		
07 Other contractual services	634		
08 Supplies and materials	4,650		
09 Equipment	3,844		
Total obligations payable out of reimbursements from other accounts	19,844		
Total obligations	16,296,528	20,104,775	19,730,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$2,614,109	$1,821,515	$2,646,290
Obligations incurred during the year	16,629,584	20,104,775	19,730,000
	19,243,693	21,926,290	22,376,290
Deduct:			
Adjustment in obligations of prior years	282,783		
Reimbursements	19,844		
Obligated balance carried to certified claims account	41,473		
Unliquidated obligations, end of year	1,821,515	2,646,290	2,676,290
Total expenditures	17,078,078	19,280,000	19,700,000
Expenditures are distributed as follows:			
Out of current authorizations	14,908,881	17,780,000	17,500,000
Out of prior authorizations	2,169,197	1,500,000	2,200,000

Mr. BUSBEY. The committee will come to order.

This morning we have for consideration the budget request of the National Cancer Institute. Dr. Heller, we are always glad to welcome you back to this committee.

Dr. HELLER. Thank you, sir.

GENERAL STATEMENT

Mr. BUSBEY. At this point, Dr. Heller, we will insert into the record your full statement, and will ask you to briefly summarize it for the committee, and then we will start with the interrogation after your summary.

(The matter referred to is as follows:)

STATEMENT OF DR. JOHN R. HELLER, DIRECTOR, NATIONAL CANCER INSTITUTE

Mr. Chairman, and members of the committee, the National Cancer Institute was established by act of Congress of August 5, 1937, for the purpose of achieving control of cancer in man through studies relating to the cause, diagnosis, and treatment of neopastic diseases, and by supporting useful application of the results of such studies.

Although cancer research has expanded most rapidly since the end of World War II, the Public Health Service has been active in the field since 1922. At that time cancer research within the Public Health Service was initiated by two groups of scientists—one at Harvard University and the other at the Hygienic Laboratory in Washington. These groups were merged to form the nucleus of the National Cancer Institute. Under authority of the organic act of 1937, the chief provisions of which were incorporated in Public Law 410, the Institute conducts original research in its own laboratories, supports research in other institutions through grants-in-aid, and helps enlarge the supply of qualified research scientists and medical practitioners by awarding fellowships to promising young scientists and traineeships to young clinicians.

It is imperative that perspective be employed in considering cancer. The path toward control has been and will be probably for many years to come, a hard one. Significant gains are more likely to be made in small rather than large segments. Mobilization of attack is one of the great achievements of our present program. Funds, organization, training, teamwork, and thought are the basic requirements for ultimate success.

EXTENT OF CANCER

Cancer, which is regarded as not one disease but a family of diseases, is our second leading cause of death—second only to heart disease. It strikes 1 out of every 2 households, and every day over 600 Americans die from the disease. About 250,000 will die of cancer in 1954, and about 700,000 will be under treatment during the year, of whom 530,000 will be newly diagnosed. Nor is the importance of cancer as a cause of death confined to certain age periods. It

extends across the entire life span. Between the age groups 5 to 14 and 35 to 74, it is the second leading cause, and only at ages under 5 and over 85 does it drop below third place when causes of death are ranked in statistical importance.

The age distribution of the population changes with time. If prevailing death rates at each age continue, in 1975 some 1 million persons will be under treatment for cancer, and an estimated 326,000 will die of it. Unless the cancer death rate for older people can be drastically cut, the number of persons affected by cancer will increase by more than 50 percent during the next 25 years because a larger proportion of the population is living into the upper-age brackets. Emphasis upon the increased risk of developing cancer should not, however, conceal the fact that a substantial number of cases are diagnosed among children and young adults.. Recent morbidity surveys revealed that 15 to 16 percent of all cancer cases diagnosed during the study year were persons under 45.

ECONOMIC LOSS

Probably three-fourths of the potential economic production of the 530,000 persons who will be diagnosed as having cancer in 1954 will be lost to society. Taking the age distribution of new cases of cancer into account, and counting as lost only those years that an individual may be considered as productive, this represents a tremendous loss of income to the families affected at the very time that their expenses mount. In fact, it is illness from cancer rather than death from cancer that most affects the cost of medical care, and that is why it is important from this standpoint to do everything possible not only to cure cancer but to cure it as early as possible to avoid the heavy expense of long terminal care.

RESEARCH

The ultimate goal of research is to discover the basic nature of cancer in man in order to establish means of preventing as well as curing cancer when it strikes. Efforts in this direction have each year broadened the base of fundamental facts about the process of growth, both normal and abnormal. Unlike other diseases, cancer is a type of body reaction and results from the probable interaction of a number of factors. The common denominator, however, in this type of body response is the change within the individual cell which we call malignant transformation. This refers to the multiplication, differentiation, and organization of cells in the body which, reduced to a simple word, means growth. In the study of cancer, therefore, growth is the fundamental element.

Cancer, then, is a disease of individual cells. Malignant cells seem to be specifically modified cells capable of passing on their abnormal characteristics when they create new cells. There appear to be irreversible changes in cancer cells, the cause of which has not been established.

A few external causes of cancer are known, such as undue exposure to a variety of industrial chemicals and ionizing radiation. But the natural causes of cancer are more elusive, and must be sought vigorously and tirelessly before prevention can be achieved.

The fact that exposure to external influences which can cause cancer does not produce it in all members of a population indicates the important role of intrinsic factor. Controlled experiments with animals have shown that both susceptibility and resistance to cancer can be inherited. Susceptibility and resistance are relative terms, however, for an overwhelming stimulus may overcome natural resistance. Furthermore, these characteristics vary with individual animals of the same species. The importance of the genetic influence in producing cancer experimentally in animals has been demonstrated by mating brother to sister for many generations, but, of course, it is quite impossible to do this with human beings. We must therefore continue to study genetic influences in animals in terms of physiologic or biochemical functions which may be measured in many individuals and correlated with their probability of developing cancer.

It might be said that the crux of the problem in cancer is the behavior of living cells. Cells derive their energy from chemical reactions from within. There is variation in the chemical behavior of cells of different structure, with a change in chemical behavior as the structure is changed. Consequently, a malignant cell seems to differ chemically from a normal cell because it behaves differently. Control, therefore, of the growth of tumors other than by removal might be accomplished through the control of their chemical reactions.

DIVERSE DISCIPLINES INVOLVED IN CANCER RESEARCH

There is a vast body of knowledge available to the research scientist. In some respects more is known about cancer than other diseases. Those who are trying to develop diagnostic tests for cancer, or to find cures for cancer, or the cause of cancer, see the paths of several disciplines weaving together, interlocking frequently and then diverging markedly. The many advances made in the several research pursuits in cancer have been found to be dependent one upon the other to a striking degree.

Most improvements in the care of the cancer patient will result from research. Many scientific specialties have contributed significantly to progress in cancer research and will continue to do so. Such a broad attack may seem diffuse to those not acquainted with the field, but experience has shown that advances in the study of disease states must in large measure await the availability of information obtained from investigations that seem to have little or no direct application to everyday problems. The point is often made, and can be substantiated from history, that practical applications of scientific facts and principles, such as inventions, are inevitable consequences of progress in amassing accurate information. It is for these reasons that research in several disciplines of science must form an integral part of cancer research. Many of these studies do not appear to be as spectacular as some of those made on cancer present in the patient, but it is important to keep in mind that if the supply of fundamental information is not constantly replenished, practical, tangible results for the patient will be all the slower in coming.

Many of the results which the cancer research worker considers highly significant never receive emphasis in the reading material presented to the public. A truly great amount of progress has been made in the last decade in this area of research. We have a much more thorough understanding of the nature, initiation, diagnosis, cure, palliation, and prevention of cancer than ever before.

TANGIBLE RESULTS NOW AVAILABLE

A summary of an extremely large amount of long and laborious work, indicating several significant advances, can be given by a listing of certain basic principles relating to the causation of cancer which have been affirmed and reaffirmed in each of several species studied, including man:

1. A wide variety of apparently unrelated agents—chemical compounds produced synthetically, naturally occurring compounds, radiations, and biologic entities—can produce cancer.
2. Most of the potent agents will produce cancer in only a fraction of the population studied.
3. The cancers that result from the application of a powerful cancer-producing agent develop after a long period of apparent well-being, which may be measured in weeks or months in laboratory animals but is probably a matter of years in man.
4. The advent of cancer need not be preceded by any constant, predictable, structural change in the tissue that is destined to become cancerous, at least by the methods of detection now available. In some specific cases, however, such changes can be detected.
5. Quantitative relationships between the character and intensity of some agents capable of producing cancer, and their effect on laboratory animals, have been defined.

Experience in studying persons with cancer caused by accidental, occupational, or industrial exposure to cancer-producing hazards substantiates the validity of these generalizations. Additional confirmation is afforded from investigating peculiarities of locale or habit which make some populations more susceptible to cancer than others.

CANCER AND INDUSTRY

On the basis of several studies, a number of compounds present in the environment have been found to be agents that cause or contribute to the initiation of cancer in man. Such compounds are some tars, some petroleum products, radioactive materials, certain metallic materials (e. g., chromates, obtained in metal smelting processes), certain dye intermediates, and other products or byproducts of industrial activity and modern civilization. From such findings, it has been possible to prevent exposure to those materials of the industrial worker handling such agents. It is clear that numerous cancers have, therefore, been avoided, and such preventive methods will continue to pay inestimable dividends in terms of prevention of human suffering and loss of life and dollars.

CLINICAL WORK NOW POSSIBLE AT BETHESDA

Direct research activities at the National Cancer Institute have as their basis of approach the acquisition of factual information obtained from the study of experimental and clinical cancer. Many research categories are involved in obtaining this information, and large masses of data have accrued from the study of experimental cancers. The availability of long-needed research hospital facilities provided by the new Clinical Center of the National Institutes of Health will make it possible to obtain similar information on human cancers, in order to affirm or deny the soundness of the basic approach and to obtain further knowledge and practice in the control and prevention of cancer in the human being.

With the acquisition of clinical facilities, the laboratory worker and the physician have been brought together in their work. The former has become more aware of these facets of cancer research extremely important to the effective control of cancer in man, and the latter has been encouraged to work with the critical acumen and rigid discipline that characterize the more easily controlled laboratory investigation. An example of the effects of this wedding of the two groups is found in a problem in protein chemistry and metabolism that had been studied at a laboratory level. This concerns a technique which permits separation of different proteins in essentially unchanged biologically active state. It has enormous potential for the study of plasma proteins in man which can now be grouped into only 6 reproducible entities, whereas the new methodology suggests that an unpredictable number of different proteins may be definable. One of the clinical staff has become so interested in the work that he is now spending about half of his time with the chemists in anticipation of the direct determination of the clinical usefulness of the technique. This manifestation of interest on the part of clinically competent people led the chemists to an interest in certain aspects of protein metabolism important to cancer patients which should help to prevent the deterioration that commonly accompanies the growth of cancer and influences the effectiveness of therapeutic measures.

As another example of scientists-clinical cooperation, a member of the surgical staff of the National Cancer Institute became interested in the reason for the frequent local recurrence of head and neck cancers after extensive surgical procedures designed to effect their cure. In many instances such cancers have recurred within a year at or near the site where the operation was performed. In some cases it was possible to recognize cancer cells in a wound resulting from extensive neck surgery after the tumor was removed but before the wound was closed. This has lead to a series of experiments in rabbits designed to find out more about this problem, and laboratory scientists of our staff are cooperating wholeheartedly in the venture. Ultimately, it is hoped that results from this animal research may be taken back to the operating room and lead to prevention of recurrence at the incision.

One group of scientists at the National Cancer Institute is investigating the appearance and microscopic arrangement of cells and tissues in the development of cancer. Another group is trying out drugs to find out which ones can inhibit the growth of tumors. Other scientists are exploring the role of endocrine glands and the hormones they produce in the development and progress of cancer in the patient. Biologists are studying the delicate structure of the cell to see what happens in the chemistry of the cell when it changes from normal to malignant, to learn more about the influence of heredity on the occurrence of cancer, and to see how the cancer cell sustains itself.

Experiments designed to increase our understanding of the effects of radiation on the body are in progress in laboratory animals. In addition to their importance to cancer research, such studies are, of course, needed because of the development of atomic-energy weapons. Especially important to both areas are studies on radiation sickness (nausea, vomiting, diarrhea, fatigue, and weakness plus, in severe cases, anemia, hemorrhage, and infection resulting from large doses of radiation). It has recently been found that shielding of the spleen or of part of the bone marrow, or the prompt administration of normal spleen or bone marrow to an individual who has been exposed to a fatal dose of radiation, can prevent or counteract many of the usual consequences of such exposure. These findings give new leads to possible effective means of protection against large amounts of radiation. Much remains to be learned in this area.

Surgery and irradiation by X-ray or radium are still the only recognized definitive treatment by which cancer can be cured. There have been significant reductions in mortality rates for cancer of some sites through improved techniques of surgery and care of the patient both before and after an operation. Sometimes, through surgical removal of endocrine glands, growth of a tumor can be

interrupted temporarily because of the alteration of hormonal balance caused by the absence of the glands.

The development of new and more powerful radiation has made this method of treating cancer much more effective. There have been ingenious improvements in methods of applying radiation, such as rotation of the patient underneath an X-ray beam, which makes it possible to pin the radiation on the cancer with a minimum of damage to surrounding tissues.

Radioactive isotopes have now made it possible to apply radiation with particular advantage to certain kinds of cancer formerly difficult to reach. Radioactive iodine is valuable against cancer of the thyroid and radioactive phosphorus is useful against leukemia.

As the use of chemicals in the treatment of cancer widens, undeniable evidence of their clinical usefulness grows, increasing the importance of chemotherapy as an aid to surgery and radiation. Experience with patients continues to yield new proof that several of the chemical agents now available, while not curative, add months of comfort and productivity to the lives of many, both children and adults. Some chemicals can be given to increase the effectiveness of radiation. Others can be used, in selected cases, to increase the effectiveness of cancer surgery. In some instances, chemicals may be used with considerable benefit in the palliation of incurable cancers, permitting longer survival.

The forms of cancer which have been helped, though not permanently, by treatment with chemicals, include acute leukemia in children, chronic leukemia in adults, Hodgkin's disease, advanced cancers of the breast and the prostate gland, and cancers of the bladder and the lung.

Bearing on an important aspect of cancer chemotherapy, intensive work on the cause of leukemia and allied diseases of the blood-forming organs continues to progress at the National Cancer Institute. Experimental study of the influence of the thymus gland on the occurrence of leukemia is being extended. Also going forward in research on the resistance to chemical treatment agents which leukemic cells develop. This research has shown that leukemic cells develop resistance to specific antagonistic compounds, such as the folic acid antagonists, and that this resistance may be due to a change in the cancer cells. These important findings are further evidence that the biological activities of cancer cells are not fixed, but can be altered by chemicals and made less active and less destructive. Thus, they may point the way to better methods for using chemicals which have counteractive effect in the treatment of leukemia.

In this field, in which the Congress has expressed special interest, the newly established Committee of Cancer Chemotherapy Investigators, whose integrated research programs are supported by grants from the National Cancer Institute, is undertaking a coordinated program designed to bring about earlier solutions to problems that seriously limit the chemotherapeutic attack on cancer, including leukemia. It is believed that better methods can be devised for screening chemical compounds for cancer-destroying ability, that promising anticancer chemicals can be synthesized more rapidly and systematically, and that the trial of such compounds in human beings can be accelerated when the safety and possible usefulness of the drugs have been established.

GRANT SUPPORT, FELLOWSHIPS, TRAINEESHIPS

Financial support to agencies and institutions outside of Government for cancer work has been extended during the past year. Grants of one type or another have been made to practically all organizations and institutions in the Nation that have appropriate facilities and personnel to collaborate in solving the problem. The immediate goal of this activity is to advance the whole national program of cancer research. There has been a gradual increase in the number of scientists trained in the various fields necessary to cancer research, and additional facilities have become available. Discoveries in the field of atomic energy have brought about possible applications of several exciting facets of this new area to the study of the diagnosis and treatment of cancer.

In the fellowship program, since its inception in 1938, there have been 1,020 young men and women who have been supported in their training to become research scientists. In addition, since 1938, 635 young physicians have received specialized training in such fields as surgery, medicine, pathology, or radiology in institutions throughout the country, in order that there may be an improvement in the care and treatment of cancer patients in hospitals and clinics.

APPLICATION—CANCER CONTROL

Progress in the control of cancer depends not only upon continued laboratory and statistical research, but also upon application of the products of research as rapidly as practicable to the problem of discovering and treating individual cases. Responsibility for promoting such application through the development of case-finding techniques and programs of professional and lay education rests upon both Government and voluntary groups.

The key to successful treatment of cancer is finding the disease early. The two general objectives are: first, to find ways to shorten the dangerous time intervals between the onset of the disease and diagnosis, and between diagnosis and the start of treatment; and second, to improve the level of cancer diagnosis and management.

As with any disease, case finding is extremely important in the control of cancer. Because of the importance of early diagnosis, every effort must be made to find individual cases even before ordinary symptoms appear, if possible. This gives added importance to frequent medical examinations for everyone.

Advances which have been made in the diagnosis of cancer have made it necessary to abandon many basic concepts in order to make early detection possible. For example, it is recognized today that abnormal vaginal bleeding as a direct result of cancer of the womb means, in the majority of cases, that a visible tumor with possible ulceration is present, and that this is not an early stage of cancer in the present sense of the term. By examining cells from the vaginal tract, a microscopic lesion of the neck of the womb—a lesion—referred to as "carcinoma-in-situ" can be detected. Some authorities believe that all such cancers begin in this manner and after a time grow and become an easily recognizable cancer. If this can be substantiated, it will mean that the referred-to lesion is cancer at its earliest stage and is curable in practically 100 percent of cases.

The life-saving value of the cell examination technique in discovering cancers of the uterine cervix at early stages, before they become incurable, continues to be demonstrated. The latest in a series of clinical studies has shown that these cancers undoubtedly start in a highly curable form and remain so for as long as 5 or 6 years. This knowledge concerning the latent period of cervical cancer provides us with a much more useful tool for better handling of this form of cancer, the second most frequent form occurring in women.

In breast cancer it has long been felt that if a lump in the breast were small in size, it probably had not spread to other parts of the body, particularly the glands in the armpit, and was "early" cancer. It is now recognized that the size of the original tumor does not necessarily bear a direct relationship to the stage of development of the cancerous process, and that the stage of truly "early" breast cancer lies further back in its development, toward a microscopic lesion.

In lung cancer it is now recognized that cough, chest pain, expectoration and loss of weight are manifestations of late cancer. An early lung cancer produces no symptoms and reveals itself as a "silent shadow" on the X-ray film or through cancer cells observed in bronchial secretions which can be examined under the microscope.

There is now no one screening procedure or test which will discover early cancer of all types. There are, however, tests for cancer of specific body sites which are valuable case-finding tools. Other techniques and procedures are being developed and used.

It would be highly desirable to determine the kinds and types of people most likely to develop cancer. If this could be done, case-finding efforts could be more specifically directed toward groups in which cancer of particular sites is most likely to occur. There are, in fact, geographic, climatic, racial, socioeconomic, and environmental differences in the occurrence of cancer, whose significance to case findings has been appreciated only recently. There are, for example, racial differences in the incidence of cancer of specific locations. The incidence of cancer of the uterine cervix, to take one specific finding, is higher in Caucasians than in Negroes, while the reverse is true of cancer of the body of the uterus.

The habits of people may have a relationship to cancer. For example, excessive cigarette smoking appears to have some association with lung cancer, although the evidence that smoking causes cancer is still inconclusive. Numerous studies are being conducted to determine if such an actual relationship is primarily causative.

Exposure of workers to a number of materials in their environment may be the basis for development of the majority of occupational cancers. Many studies are in progress in several parts of the country designed to search out the cancer

causing agents in manufacturing or industrial environment. Elimination of the material or appropriate protection to the worker will achieve control.

Case-finding programs have taken principles, devices and procedures utilized by other disease control programs and attempted to adapt them to the cancer problem. For example, the small X-ray film used in screening the population for tuberculosis has a degree of usefulness in the discovery of early lung cancer.

A cancer clinic is a facility, usually located in a general hospital, and organized so that representatives of the various specialties, including surgery, pathology, radiology, and internal medicine, can work with the patient's private physician on diagnosis and treatment.

The number of cancer clinics throughout the Nation has increased markedly in recent years, but there are still far fewer than are required to meet the need. The establishment of additional clinics is being promoted and encouraged.

A variety of general diagnostic tests for cancer have been developed, most of which have been extensively evaluated but none of which is sufficiently sensitive or specific for practical use. However, the fact that some of them work to some extent is an indication that something tangible occurs in the body of a cancer patient which it may be possible to measure. Further intensive work is needed on this and will result, it is hoped, in a reasonably satisfactory general test for cancer. Such a test would be of considerable value in determining those individuals who would require further diagnostic study to determine the organ or area of the body involved. Lacking a general diagnostic test, there are certain techniques by which cancer of specific sites can be indicated in an early stage when opportunity for control is greatest. The most useful of these is the simple cytologic test, or cell examination technique, described earlier in this statement.

In recent years considerable effort has been devoted to the improvement of cancer teaching to undergraduate students in medical, dental, osteopathic, and nursing schools. These efforts have assured for graduates of these professional schools a better understanding of cancer and better preparation for handling this disease problem.

These educational efforts have been extended beyond the undergraduate years to physicians interested in obtaining special training in the diagnosis and treatment of cancer. Both voluntary and governmental groups support such specialized training for physicians, and the need for it is increasing.

In addition, the level of competence of practicing physicians, public health workers, nurses, and other professional groups concerned with the control of cancer has been increased through educational media such as refresher courses, national conferences, teaching films, manuals or guidebooks, and professional bulletins.

As the physician's index of suspicion of cancer is raised, it is also necessary to show the general public the importance of cooperating with the medical profession for more effective cancer control. A well-planned, widespread, and continuous public educational program can reduce deaths from many types of cancer. It can do so by stimulating the individual's awareness of cancer and by teaching him to seek medical attention at the earliest moment in the development of his disease.

Mr. BUSBEY. You may proceed, Dr. Heller.

Dr. HELLER. Thank you, Mr. Chairman and members of the committee.

The statement submitted to you and the committee indicates something of the extent of cancer. We are seeing more and more deaths from cancer occurring in this country, as there are more of us, and as we have an aging population.

We indicated something of the research approach which has to do primarily with an approach toward the cell as the integral unit of growth, and upon which the whole concept of cancer as a disease is based; that is, the aberrant, or the wild growth of a cell, which is uncontrolled by the body mechanism.

We mentioned something of the importance of cancer in industry, in which something in the order of 1 percent of the causes of cancer are known, and these primarily are in the area of industrial cancer, or environmental cancer.

We mentioned something of the clinical work in cancer, and some of the work at the clinical center which will go on at that project in the future.

Particular reference was made to radiation, and some of the work proposed at Bethesda, and some of the work being done by grantees throughout the Nation. Special attention was paid to chemotherapy, which is a program in which this committee has been especially interested, and for which funds were additionally made available during the current fiscal year, for the prosecution and encouragement of additional work in this general area of chemotherapy with particular reference to leukemia and allied conditions.

Mention was made to grant support to the institutions throughout the Nation for fellowships and for traineeships. Something of the order of the magnitude of these programs was outlined, and mention was made of the disposition of men who had completed these training opportunities.

Mr. BUSBEY. Doctor, I wonder if, rather than summarizing the headings of these different subjects, you would tell us a little about the details of what you are doing?

Dr. HELLER. Certainly, sir.

We speak of research, Mr. Chairman; we are including both the work done at Bethesda and the work in other institutions throughout the country with funds made available by the Congress for support of such work.

Work, in research is approached from a number of angles. Many disciplines are involved in cancer research. We find that the geneticists, physicists, chemists, the biologists and pathologists, and numerour other categorical disciplines are involved with study of the several aspects of the cancer problem.

We find that there seems to be a general concept in the minds of most of these individuals that the cell, as I mentioned previously, is the fundamental unit which they need to study to find out the secrets of why the cell behaves as it does, and what makes it function normally. What are the things which cause it either to cease functioning as a normal unit of the body, or those things which cause it to behave as an abnormal growth.

VALUE OF EARLY DETECTION

Mr. BUSBEY. Doctor, from time to time we have had testimony before this committee to the effect that a much larger percentage of cancer patients could be cured if it could be found in time. What has developed during the past year in regard to the detection of cancer, so that you can detect it soon enough to cure it?

Dr. HELLER. Mr. Chairman, I think some of the most significant advances that we have yet seen in cancer research have taken place.

If I may be permitted to show you and the gentlemen of the committee a chart which I think will illustrate some of the points, I would appreciate it.

ADVANCES IN DETECTION OF CERVICAL CANCER

Here is an illustration of the status of cervical cancer: Cervical cancer is a condition with which about 30,000 women a year are found to be afflicted. We find that about two-thirds of this annual 30,000 will die within 5 years.

Cervical cancer is considered to be cancer of an accessible portion of the body, which can be visualized, although there has to be an examination made by a skilled and competent physician.

Due to the research by Drs. Papanicolau and Traut, who were supported by grants from the National Cancer Institute, a procedure has been elaborated, by which cells from cervical cancer can be found early, earlier than anyone previously suspected, this has reaffirmed the belief which has been fairly well proved in the minds of most pathologists and cytologists that cancer starts much earlier, but lies more or less quiescent for at least 5 to 6, and sometimes 10 years, before it becomes clinically noticeable. The cytologists call it invasive when cancer invades the rest of the body.

The figures on your left, indicated by the blue, indicate the League of Nations figures, and the amount of cancer occurring in the various stages. The stages are arbitrarily set forth by the old League of Nations committee under its nomenclature of furnishing cancer information. We see 10 percent in stage 1, this being the most favorable from the point of view of removing the cancer, proceeding on to stage 4, in which 20 percent of all cases coming to medical attention are in an almost hopeless stage.

The stage zero is the stage to which I referred briefly, and it is possible through the Papanicolau cytologic test to find cancer cells which will slough off from these early or undetectable cervical cancers. This stage zero can be found probably in 100 percent of instances of cervical cancer, if one looks for them.

On your right is represented the present experience in the management of cervical cancer, if we get it in the earliest stage that it is clinically detectable. Sixty percent of the individuals will have a 5-year survivorship, which is a standard of measuring the effectiveness of treatment.

In the next stage, which is somewhat less amenable to treatment, only 50 percent can be saved, and so on up to stage 4, in which only 5 percent will live 5 years, and presumably be cured.

The expression "cured" is always used in quotation marks in this instance.

Mr. BUSBEY. Doctor, it is not quite clear to me what these five stages represent.

Dr. HELLER. All right, sir; I will make that as clear as I can.

Stage 4, Mr. Chairman, represents cancer in an advanced state in the cervix of the uterus of the woman, in which it has extended beyond the confines of the uterus itself, and has extended into the outlying tissue, and truly is far advanced.

Stage 3, in which the cancer is confined primarily to the cervix of the uterus, or to the body of the uterus, represents the situation in which there have been some slight extensions into the outlying tissue, but not so far into the rest of the body as in stage 4.

In stage 2, the lesions are fairly well confined to the uterus. In fact, they are confined to the uterus, but have extended from the cervix, which is the lip of the uterus, into the body of the uterus.

Stage No. 1 is the situation in which cancer of the cervix is confined to the cervix, or the neck of the womb stage zero is that position in which there is a tiny almost minute cancer, which is quiescent within the cervix, and which probably has been there from 5 to 10 years before it becomes clinically noticeable, or causes any symptoms.

It is that stage in which we are very interested.

This year we have reason to believe, from the information derived from grantees, and from our own experience, that 100 percent of cancer of the cervix detected in this early stage can be cured.

We have a study going on in Memphis, Tenn., in which many women of Shelby County are being examined through cytological examinations. To date, about 80,000 women have been examined, with a finding of something of the order of about 250 of these hitherto undetectable cancers. With proper medical attention, 100 percent of those women could be saved, by the cancer not progressing to this unfavorable point on the chart. [Indicating.]

That, to me, sir, is one of the most fascinating and one of the most striking advances which has been made in the past year, and bears upon the very point which you brought up, that is, early diagnosis, early recognition and prompt treatment.

Therefore, we consider this to be one of the most remarkable advances in the management of cancer, and which has not only tremendous laboratory and clinical significance, but great public health significance. It is, therefore, capable of being translated to a health department activity or to other practical measures, as we hope to demonstrate on the Memphis studies, to the extent that it can be used in a given population of women.

One of the most important things to us is that this stage zero of cancer of the cervix is occurring in young women—women 25 years of age, to 35 years of age—which is important, because that is the child-bearing age.

We know that this early cancer exists, and while under medical surveillance these young women can go ahead and have children. At the proper time, as determined by the physician, remedial surgery or radiation can be given, and the woman will be cured, and I do not put "cured" in quotation marks in that instance. She is cured of her cancer, and yet she is able to have children.

Therefore, Mr. Chairman, I think that is one of the most dramatic illustrations of the thing which you mentioned, and we hope by another year or so to be able to indicate unequivocally the proposition that management of cervical cancer is practicable and can be utilized by health departments and physicians as a workable measure.

ADVANCE IN DIAGNOSIS BY X-RAY

One development which is perhaps less dramatic, but important is a new advancement in X-ray, which utilizes the million-volt X-ray.

Here, on picture No. 1, is a photograph of an X-ray taken by the conventional machine.

X-rays, as you know, in diagnostic procedures, depend upon the shadows which are read in the film, according to the density of the material through which the X-rays go. In other words, the denser the material, the lighter it will appear upon an X-ray.

For instance, this dark portion here indicates that the rays are going through. This is the rib, and this is the lung. Therefore, if one expects to find a solid tumor, one would look for a light place.

This man was believed, strongly, to have cancer of the lung. It was not clearly demonstrable in an ordinary picture, but with one of the new 2-million volt X-ray machines at the University of Pennsylvania, nvestigators working under a grant from the Cancer Institute, found

that it is possible to find tumors in the chest which are deep and obscured by bones, or other heavy material somewhat of the same density.

This, then, is the conventional picture. Now, here is a picture of the same chest, taken with a 2-million-volt machine, the rays of which penetrate much more deeply, and when adjusted, we see what is called a bulla, or a bleb outlined in this area, which is an airspace, with tissue around it probably indicating inflammation. Here, sir, is a fairly large cancer of the lung outlined as a white mass, which, as I pointed out previously, is denser than this, or this.

It, therefore, shows up as a tumor not easily noticeable in the previous picture. A diagnosis of cancer of the lung was established much more easily and quickly which could conceivably have been missed through routine examination by X-ray. However, in this way a diagnosis was established, and the point is brought out in your question to the effect that the tumor can be picked up much earlier this way and remedial surgery instituted, enabling the individual to have a much better chance of survival.

One other picture illustrates the same situation. Here is an X-ray by conventional diagnostic procedures, in which an individual previously had cancer of the lung, part of which had been removed. On this side over here we see the heart and the breathing apparatus pulled over to the right by adhesions.

Here is the trachea, that is, the windpipe, which extends down here, which is pulled over.

The man was having symptoms several years after his initial difficulty.

The conventional X-ray did not indicate the presence of a tumor, although it was strongly suspected. A picture was then taken with the 2-million-volt machine on the same individual, at the same time, with proper adjustments.

Here, we see, as the arrow points out, a distinct mass which was later, upon operation, found to be as was thought, a carcinoma of the lung, which was pushing the windpipe over and causing the air and material to have to go around this tumor, and causing a definite trouble.

It is believed by many X-ray men, Mr. Chairman, that the utilization of these new machines will help us to find cancer of the lung earlier, and bear out the point which has been made so many times by myself and by others, that early detection and early recognition and early surgery will be the means, then, of saving an additional 25 percent, even with the treatment tools which we have now available.

HARMFUL EFFECTS OF RADIATION

Mr. BUSBEY. Doctor, while we are discussing X-ray, I have from time to time heard people say that there is a disease of some kind that comes from having the body X-ray'd too much. Is there any foundation for that?

Dr. HELLER. Yes, sir; it has been found that all animals, including human beings, are susceptible to X-rays in varying degrees. This has been found primarily through experience in radiation activities in which there have been some unfortunate accidents—unpreventable and unpredictable accidents. Individuals have received fatal doses of total body radiation, and usually die within a week or 10 days.

Individuals vary as to the time they will live, and vary somewhat as to their reaction, but generally their reaction is the same. The first symptom is usually nausea or vomiting. They proceed then into a coma, and very quickly die if they have received more than 400 roentgens, that being the arbitrary unit used by the physicists as a measurement of the amount of radiation which they call lethal dose 50. That is, 50 percent of people who receive a dose of 400 roentgens will die, but others will survive that dosage.

Therefore, there has been a great activity on the part of our scientists, and scientists of the Atomic Energy Commission and others, as to means to protect individuals from radiation damage.

In our own activity at the Bethesda location, Dr. Lorenz, who, unfortunately, died about 2 months ago, found that animals could be protected by the injection of small amounts of bone marrow, the material found in bones, which is a blood-forming substance. Small amounts of this will protect animals phenomenally even under total body radiation, a condition in which their whole body is exposed to radiation.

It has been found that screening vital organs of the body, that is, the spleen, the liver, and some of the other organs, with a lead plate, or with some other protection against radiation, will cut down remarkably the fatal effects, or the deleterious effects of X-radiation or ionizing radiation.

It has been found also that animals and individuals given less oxygen than is necessary for ordinary requirements, will be protected to the extent that they can take more than usual amounts of X-radiation or radiation before having fatal effects.

There has been great activity on the part of everyone to find out more about why the cells of the body are involved. The physiology involved suggests damage to the blood-forming organs, particularly. Lukemia, for instance, Mr. Chairman, will develop sometimes, as has been indicated at Hiroshima and Nagasaki, after exposure not to a fatal dose of radiation, but to a near-fatal dose, in which the blood-forming organs, bone marrow, and other systems, have been involved.

Mr. BUSBEY. Does that body change which is caused from X-ray, have any particular name?

Dr. HELLER. It is referred to as radiation sickness, or injury.

Dr. SEBRELL. It is usually referred to as radiation sickness, when an individual who is under treatment gets a heavy dose of X-ray and it is this radiation sickness that limits the amount of X-ray you could use in treating a cancer.

Mr. BUSBEY. What means do you employ to determine in advance of the patient being X-ray'd as to what amount he can safely take, and what he cannot take?

Dr. HELLER. The machines which are used, Mr. Chairman, in the treatment of cancer are very carefully calibrated. As a rule, the total body is not radiated but only the site of the cancer.

Let us assume that it is cancer of the breast or cancer of the thyroid. New devices have been elaborated in which there is a very narrow pencil-line field of radiation beamed at that particular site.

Therefore, the total body is not subjected, and only, hopefully, the cancer cells are subjected to bombardment with radiation.

Normal tissues are injured only in minimal amounts, through the careful calibration of the machines, the careful administration of

radiation by the physician giving it, and a careful watchfulness for any symptoms to see if that patient is unusually sensitive to radiation during the administration of this treatment.

There are other ways of determining damage through study of the blood and through the actual physical reaction of the patient to radiation.

So, they are very carefully protected from the danger which you have described, Mr. Chairman.

Mr. BUSBEY. Would there be any danger, such as you just described, in giving these diagnostic chest X-rays?

Dr. HELLER. No, sir; they get too little radiation that way. They get probably less than one roentgen—as a matter of fact, about one-half a roentgen—I am told, with new machines. That is about all they get for the average chest X-ray.

The entire improvement of the diagnostic X-ray procedure has been directed toward better machines which have less scattering of rays, and which take less X-ray intensity to produce a picture. So, there is comparatively little danger, almost no danger, from the ordinary diagnostic procedure.

BUDGET REQUEST

Mr. BUSBEY. Your request for fiscal year 1955 is for $19,730,000?

Dr. HELLER. Yes, sir.

Mr. BUSBEY. Which is a decrease of $507,000 from the 1954 appropriation, but because of transfers to other appropriations, the net reduction would be $374,775?

Dr. HELLER. Yes, sir.

Mr. BUSBEY. We all appreciate the fact that the more money we have for research, the more people we can put to work and the more chances we have of making earlier discoveries of cures for a lot of these diseases, but would this amount of money, $19,730,000, permit you to carry on your research work at the present level?

Dr. HELLER. Yes, sir.

Mr. BUSBEY. You do not think that would handicap the Institute particularly if that was not reduced any, but left at the amount requested?

Dr. HELLER. Mr. Chairman, we believe that with the money indicated in the budget that we can do a good job in the prosecution of the cancer program, as indicated.

OTHER ADVANCES OF THE PAST YEAR

Mr. BUSBEY. In addition to what you have recited to the committee, are there any other particular instances of advancement in cancer research during the past year which you would like to mention?

Dr. HELLER. Yes, Mr. Chairman; there have been some advances in management of patients, which is always interesting, I think. There have been improvements in the techniques of surgery, and in the preoperative and postoperative management of the patient. There have been improvements in the technique of surgery to the extent that more patients are being saved than previously has been experienced, through the introduction of new ideas, new drugs, and new surgical concepts.

We think that is important. There have been some new compounds on the market which will make it possible for the patient to receive better nourishment during the course of his cancer treatment.

There has been advanced the idea that a patient does not become emaciated because of his disease, but because he simply has no appetite. These new nutritional compounds make it possible to build the patient up to the point where he can stand surgery much better.

That may not sound like a great advance, but it indicates progress.

In the endocrine field involving the glands of internal secretion which regulate to some extent the processes of the body—it has been found that endocrine secretions have a noticeable effect on some cancers, either in the causation or the recession of cancer.

Dr. Charles Huggins, of Chicago, who is one of the outstanding cancer-research people, found as early as 1940 that by removing certain glands of internal secretion certain cancers, particularly of the prostate, could be arrested, at least for a time.

Subsequently, he has found that removal of additional glands of internal secretion will cause a further remission of cancer in some instances. Therefore, some individuals with prostatic and breast cancer are offered additional years of life by virtue of these surgical procedures. Several years of happy, useful years in a man's life is certainly worth while.

There are other advances in the endocrine studies, Mr. Chairman, some of which are going on at Bethesda. One is the massive intravenous administration of estrogens and similar sex hormone solutions found to be very useful in arresting the almost catastrophic course of some breast and prostatic cancers.

Similarly, the administration of the hormone progesterone has been very useful in the preparation of a patient for major surgery. Some very interesting advances have been made with some of the other hormones in the management of cancer, but nothing too startling or striking to be reported at this time.

I hope that we will be able in time to report even more advances in this area.

Mr. BUSBEY. It seems to me that studying for a medical degree 20 years ago was comparatively simple, as compared to what it would be today, with all the new drugs and treatments, and these new techniques.

Dr. HELLER. Mr. Chairman, 20 years ago it was not simple to me, but it, of course, is much more complicated now, as you pointed out. We do have many more drugs, and we have many more things to learn, and it tends, then, toward a high degree of specialization.

Mr. BUSBEY. The same thing might be said about nursing. I think a nurse today has to be able to do a great many more different things than they did 20 years ago.

CANCER IN INDUSTRY

Dr. Heller, on page 6 you refer to cancer in industry in your statement. How are the results of your research gotten to industry?

Dr. HELLER. Mr. Chairman, they are gotten to industry in several ways:

We have a Division of Special Health Services in the Public Health Service, with which we work very closely. This group is very in-

timately and closely associated with industry in their work, and industry looks to them for advice about industrial health.

Advances that are found in our laboratories are made available to the people in this Division, and we work closely with them, collaborating on studies. The results are translated to industry at a time when it is felt they are of sufficiently practical use.

Another way is through the several committees of the different organizations, notably the American Cancer Society, the American Medical Association, the Association of Industrial Physicians, and others in which the physicians themselves, individually, are interested in some particular facet. These groups or individuals turn to us for advice and consultation and frequently importune our scientists to study a particular activity which is prejudicial to the health of their workers.

In those several ways, Mr. Chairman, we work, I think, very closely with industry and translate very quickly the things that are found in the laboratory to practical industrial application.

EXTENT OF COVERAGE BY GRANT PROGRAM

Mr. BUSBEY. Under grants, fellowships, and traineeships, you state in the second sentence:

> Grants of one type or another have been made to practically all organizations and institutions in the Nation that have appropriate facilities and personnel to collaborate in solving the problem.

Does this mean that there are no organizations or institutions that can operate efficiently without Federal funds?

Dr. HELLER. No, sir, Mr. Chairman. The intent of that sentence was to point out the institutions in which primarily the interest exists—that perhaps should have been stressed—which have people who are skilled in chemistry or physics, or one of the sciences or disciplines of interest to cancer research are furnished assistance, when needed and justified.

This does not mean, by any means, that an institution can only operate or carry out cancer research with Federal funds. There are institutions in the country doing excellent cancer research which do not receive Federal assistance. However, it must be pointed out that the support for cancer exists from many sources, such as from the American Cancer Society, from the National Cancer Institute, the Damon Runyan Fund, and several other funds, as well as from some States, and from some other private individuals and philanthropic organizations.

By and large, we have knowledge of every activity in cancer research that is to us of major import. We have generally observed that an institution undertaking research in cancer at some time or other turns to us, although at the same time turning to other grant-giving bodies, for assistance.

Dr. VAN SLYKE. Mr. Chairman, I think these grants to these institutions permit more research work to be done. They would do a certain amount of cancer research in any case, but with the grant support provided by the Congress they are able to increase the amount of research on cancer.

USE OF STATE GRANTS FOR DETECTION AND DIAGNOSIS

Mr. BUSBEY. On page 6 of the justifications is a brief statement on grants for detection, diagnosis and other control services. Is it not true that about all that most States do in operating diagnostic and detection services is the incidental part that their tuberculosis X-ray program plays in the detection of cancer?

Dr. HELLER. If I understood the question correctly, Mr. Chairman, the point you are making is that the detection of cancer is incidental to the operation of the tuberculosis unit?

Mr. BUSBEY. Yes. The States do not operate any extensive services in this field; do they?

Dr. HELLER. Not with X-ray for cancer, sir. They do if an X-ray series is taken or if an X-ray study is made of individuals for tuberculosis, almost routinely look for cancer, as also they do for heart disease, or any other abnormalities which may be observed.

There are other things, of course, which the States do through their grants, in a detection and diagnostic sense.

The funds going to State health departments provide for diagnostic clinics. There are some 650 diagnostic clinics in the United States. The goal is a diagnostic clinic in every hospital and that every physician's office be a detection center. A detection center is a center to which well individuals may go to ascertain if they have cancer or any other disease, whereas a diagnostic clinic usually is a clinic to which an individual referred by a physician may go to ascertain whether or not he has cancer, specifically of a certain site.

Mr. BUSBEY. There are 650 diagnostic and detection clinics in the country?

Dr. HELLER. There are about 650 accredited diagnostic clinics, accredited by the American College of Surgeons, which is the organization which is the accrediting agency for hospitals and institutions, and which the institutions recognize as being fair and impartial bodies for accreditation.

There are probably something in the order of about 120 so-called detection centers in the country.

Mr. BUSBEY. How many State health departments actually operate diagnostic and detection clinics?

Dr. HELLER. As a rule, Mr. Chairman, the State health departments make funds available for the operation of diagnostic clinics at the existing hospitals, whether they be governmental or private institutions. I do not, offhand, recall a single health department directly running a diagnostic clinic of its own.

Mr. BUSBEY. They just help supply the finances for these clinics at the hospitals?

Dr. HELLER. As a rule, that is correct, sir.

Mr. BUSBEY. Some of these funds which are given to the States are used to support their nursing services, statistical reporting services, mobile X-ray units, laboratories, and more or less general services; are they not?

Dr. HELLER. Yes, sir.

Mr. Chairman, the cancer program is a program which has come into being at the time when there has been considerable support for tuberculosis, venereal disease, and other categorical health programs. It has, therefore, in a way been engrafted, if one may use that term, or superimposed, upon existing services.

Generally, the ability to do a good cancer program is determined by the activity of a nursing service, the activity of the laboratory, the activity of the health education program, the activity of the local health service, which take general services to the people. Therefore the funds which are made available to the States through this grant program filter throughout the State activities and may not completely be identified as cancer control funds.

In fact, many States do not have sufficient personnel to operate a separate and distinct cancer control unit. The funds frequently are not sufficiently large enough in some States and due to a small population and lack of facilities, it is not practical for them to operate a separate cancer control unit.

GENERAL AND SPECIAL PROJECT BREAKDOWN

Mr. BUSBEY. What part of the funds would be spent for special projects, if the appropriation were split between general and special project grants?

Dr. HELLER. Mr. Chairman, my estimate would be something on the order of about what it is now. That is, about $1 million; $1.1 million would be about my estimate of a good program.

Obviously, it is possible to spend more money than that in the event that we continue as we have with cancer research. But it would be my estimate, if there were splits like that for special projects that we would have a program in about the order of magnitude which we have now.

GRANTS FOR SPECIAL CONTROL PROJECTS

Mr. BUSBEY. To whom are the grants made, Doctor, that are described on page 8—the grants for special control projects?

Dr. HELLER. They are made to institutions and to individuals who are interested in the application of scientific and medical knowledge in regard to cancer.

Grants can be made for studies of the occurrence of cancer, epidemiology of cancer, research for diagnostic tests. Also a search for factors in occupational cancer, and community studies, and for those advances which are translatable to the patient.

PERSONNEL FOR TECHNICAL ASSISTANCE TO STATES

Mr. BUSBEY. On page 16 of the justifications under technical assistance to States, you show 79 positions in 1954, and 79 in 1955.

Dr. HELLER. Yes, sir.

Mr. BUSBEY. What type personnel are these 79 positions?

Dr. HELLER. Mr. Chairman, these consist of physicians, nurses, 2 or 3 engineers, technicians, cytologists and some clerical and administrative personnel.

Mr. BUSBEY. These positions only average about grade 7, so, there must be quite a few stenographers and clerks, whereas, one would think that most of them would be experts in the field of cancer diagnosis, and control.

Dr. HELLER. I think, Mr. Chairman, that that can be explained by the fact that so many of them are technicians who are working in

cytology and other phases of the program, who would average out as grade GS–5 or GS–7.

We of course have difficulty in securing physicians, although we have been fortunate in getting very good people in those whom we have. I think the item can be explained primarily because of the fact that so many technicians are in that particular grade range.

STUDY OF CANCER AMONG URANIUM MINERS

Mr. BUSBEY. Further down, and in the next to the last paragraph, under item No. 2, you state:

> A study to determine the effect of elevated levels of radon in selected groups of miners in 5 western States; a study of occurrence of cancer in uranium miners, in 2 western States.

Does the Institute help or assist only in an advisory capacity, or also in the actual operations?

Dr. HELLER. Both, Mr. Chairman. We are working with the State health departments, the Atomic Energy Commission, the Division of Special Health Services, and industry.

Of course, with the collaboration of private industry and physicians in this area, we are serving in both capacities; that is, a supervisory service, and assistance in direct operations.

Mr. BUSBEY. Mr. Fogarty?

HISTORY OF RECENT BUDGET SUBMISSIONS

Mr. FOGARTY. Dr. Heller, what was the Truman budget a year ago for the Cancer Institute?

Dr. HELLER. The Truman budget, as requested by the Cancer Institute, Mr. Fogarty?

Mr. FOGARTY. Yes.

Dr. HELLER. It was $22 million.

Mr. FOGARTY. $22 million even?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. What was the revised Eisenhower budget?

Dr. HELLER. It was $15,780,000.

Mr. FOGARTY. What was this committee's recommendation?

Dr. HELLER. The House committee recommendation was $17,887,000.

Mr. FOGARTY. What was the recommendation of the Senate?

Dr. HELLER. $20,487,000.

Mr. FOGARTY. And, what was the final appropriation?

Dr. HELLER. The bill was for $20,237,000.

Mr. FOGARTY. You are asking for $19,730,000 for fiscal year 1955?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. Which is a cut of $507,000 from what we gave you a year ago?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. So, you are cutting back a little?

Dr. HELLER. Yes, sir.

Mr. BUSBEY. As I brought out, when you take into consideration the transfer of funds, the reduction is not as great as it seems on the surface.

Mr. FOGARTY. Let me develop my theory on it, now. I think it is a cutback. That was a cut of $507,000.

BUDGET FOR GRANTS FOR RESEARCH PROJECTS

When we get into activities, I notice that you are cutting grants for research projects $669,000; is that right?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. Where were those cuts to be applied?

Dr. HELLER. The entire budget, Mr. Fogarty, is worked out so that as you indicated there is $507,000 which has been cut. The addition, primarily, is as was indicated yesterday, the result of the necessity for carrying on a full-year basis the present bed status of the Clinical Center, plus the additional beds which will be operated in fiscal year 1955.

The Cancer Institute will have 63 beds available by June 30 of this year; 26 beds more in 1955, giving us a total of 89 beds for 1955, out of a total of 350.

So, that the answer to your question is that the increased direct operations funds are to be utilized in the operation of the Clinical Center.

Mr. FOGARTY. Where will this $669,000 cut be applied in research projects?

Dr. HELLER. That, sir, will come out of our general research projects. You may recall that the action of the House and the Senate gave us about $2.4 million more for 1954, than existed in fiscal year 1953.

Therefore, the cut of $600,000, or slightly over, will be partly from this research grants area.

Mr. FOGARTY. And this is an area in which the Congress of the United States took a definite interest, and went above the Bureau of the Budget recommendation, and, I thought, expressed themselves pretty clearly when they said they wanted more funds spent in this area. However, you are coming in here now and, instead of holding that to that level, you are cutting it back.

BUDGET FOR RESEARCH FELLOWSHIPS

You are also cutting research fellowships to the extent of about $125,000?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. Where will that come from?

Dr. HELLER. That will mean that about 30 less fellowships will be available than in the current fiscal year.

Mr. FOGARTY. Has the need for fellowships gone down that amount in the past year?

Dr. HELLER. No, sir; the need has not. There is not so great an availability as once existed, because of the draft, and several other reasons, but the need has not diminished appreciably.

BUDGET FOR TEACHING GRANTS

Mr. FOGARTY. In regard to the teaching of medical subjects, you are cutting that back $130,000. Where will that be applied?

Dr. HELLER. That primarily, Mr. Fogarty, is the additional $130,000 which was allowed for 1954, and was for 2 or 3 new medical schools which did not come in this current year.

Therefore, some little savings will accrue in that particular activity. However, the $130,000 is needed as all of these medical schools come

into being, which perhaps may happen. Otherwise we will have to take a slight amount of money off of each of the medical school grants in order to make it work out, but we believe that this can be done.

It is at the 1953 level again, Mr. Chairman, as are the fellowships.

Mr. FOGARTY. I do not care anything about the 1953 level. I am talking about this program here.

In view of what men like Dr. Rhoads and Dr. Sidney Farber of Boston testified to a year ago, this budget does not add up with me, and I do not think it will add up with them. They are two pretty well-known men in the field in this country.

Dr. HELLER. Yes, sir.

Mr. FOGARTY. Dr. Rhoads of New York, and Dr. Farber of Boston?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. They ought to know what is going on, I would think, from their background and experience.

Dr. HELLER. Yes, sir.

Mr. FOGARTY. I think they know something about the problem.

Dr. HELLER. They certainly do, sir.

Mr. FOGARTY. This is what Dr. Rhoads said last year:

> This is my seventh year of appearing before this committee, or other committees relating to Federal support of scientific work.
>
> My first appearance was when I was in the Army in 1945. It became clear that there was a substantial social demand that there be created a research machine competent to handle these problems, which had never been approached on an adequate scale, in my opinion.
>
> I regarded that as a public edict, and it was obeyed. We have over the past 7 years created the scientific machines. We have educated scientists. We have caused them to move from city to city and take up new occupations, to compose new teams, which are turning out the new facts that go into this battle. Having built this army and engaged in a war, you propose seriously to disband the army and give up the war, as I understand it. I regard that as a very silly business that will cost us a great deal of money in the end.

That is what he said about the Eisenhower budget of a year ago and I think it is a very silly business for the administration to be cutting back research projects to the extent of $669,000 in this coming fiscal year. I hope that the Congress reasserts itself, and will not pay any attention to the agency which recommended these cuts, or the Bureau of the Budget, whichever is responsible.

Dr. Farber had this to say:

> These grant programs and teaching programs, financed by the National Cancer Institute, represent democracy in action because there is an equalization of opportunity throughout the entire country for the support of men that have ideas, no matter where they live, and where they work, and until funds of this magnitude became available through the Federal Government and your great organizations, such as the American Cancer Society and American Heart Association, and so on, such equality of opportunity was not the case in the medical schools of the country.

Now, I do not know who made this final decision, but I think I would rather take the advice of men like Dr. Rhoads, and Dr. Farber, and those who are in the field, as to the need that exists at the present time. I think I would be satisfying the people of the country to a greater degree by following out the wishes of such men than by trying to save a few hundred thousand dollars in an overall budget of almost $60 billion.

I think we can efficiently use $4 or $5 million more in some of these public-health items, especially in connection with research.

I do not know who is trying to kid whom in this administration, when they talk on one day about strengthening these programs, and then we have to dig it out in these hearings to find out that these activities are being cut in some places, and added to in others with the net result of a decrease in the total program.

CLINICAL CENTER BEDS FOR CANCER

How many beds out of 350 that will be activated in 1955 will be charged to cancer at the Clinical Center?

Dr. HELLER. Mr. Fogarty, we will have 89 out of 350 by the end of fiscal year 1955.

Mr. FOGARTY. In 1956, how many do you anticipate?

Dr. HELLER. About 100, sir.

Mr. FOGARTY. What activity are they going to cut to take care of that 100 beds?

Dr. HELLER. Mr. Fogarty, those budgets have not been formulated, as yet.

Mr. FOGARTY. Well, if they follow this year's procedure, we can expect some of the activities in the overall National Cancer Institute will be cut back in order to get the money to put these beds in operation, which I do not think was the intent of Congress when they appropriated funds to build the center. That is my own personal opinion.

The Senate gave you quite an increase, did it not, from that granted by this committee?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. It was about $2.6 million; was it not?

Dr. HELLER. Yes, sir.

RECOMMENDATIONS IN WOLVERTON REPORT REGARDING CANCER

Mr. FOGARTY. I have before me the report of the so-called Wolverton committee, which conducted a health inquiry, and which report was published March 10, 1954. Are you familiar with the report and the recommendations made in regard to cancer?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. Was there any testimony given before that committee that would indicate that the need for Federal participation in these research projects has lessened?

Dr. HELLER. No, sir.

Mr. FOGARTY. I have not read the entire report, but as much as I have read seems to indicate that there is still a terrific need in this field and that we should be doing more than we are doing at the present time. That is what I gather from this report, and they evidently had pretty lengthy hearings last fall.

Dr. HELLER. Yes, sir; we had one day, sir, or a day and a half.

Mr. FOGARTY. I mean the overall hearings. They had other witnesses besides you people?

Dr. HELLER. Oh, definitely.

Mr. FOGARTY. They had many witnesses?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. And they reached the conclusion that more should be done.

Now, Dr. Rhoads made a statement a year ago to the effect that the problem of cancer control can be divided into two principal parts. First, the problem of achieving better methods of cure, and secondly, that of achieving definition of the cause or the causes of the disease, in man, and the elimination of these causes before the disorder has gone beyond the earliest possible stage.

POSSIBLE INCREASE IN CANCER CURES THROUGH APPLICATION OF BEST CURRENT METHODS

He further stated that progress is being made in both those directions. He further stated:

> Now, under progress and achieving more adequate cures rates, or better restraints of cancer with the relief of symptoms for temporary periods, substantial advances have also been made.
>
> Presently, as you are aware, something over 200,000 individuals die of this disease each year. Of all the patients acquiring cancer, we are curing about one-quarter. These figures Dr. Cameron mentioned to you. We could cure half if the methods presently available were applied. That would mean a lot of people. We believe that we could cure more than half if the present research underway continues to be supported and yields results as good as have been achieved.

When he said we could cure "half instead of one-fourth if the best methods presently available were applied," what did he mean by that?

Dr. HELLER. He meant, Mr. Fogarty, that the perfect application, if we can use the word "perfect," would be that every individual who has some of the early signs or symptoms of cancer would recognize those as such and go to a physician. The physician himself would act in an alert manner and would immediately institute the proper diagnostic measures and follow up with the proper treatment, including radiation, surgery, and administration of drugs, if that were necessary. We would thereby get at the cancer before it had a chance to proceed onto a possible catastrophic outcome.

That is my interpretation of what he meant.

Mr. FOGARTY. That, apparently, is not being followed out, is it, to the degree that he claims that one-quarter of the people are cured now, but one-half could be if treatment is made available to them?

Dr. HELLER. That would represent a complete application of everything we know, Mr. Fogarty. In other words, that is visualizing every individual as being alert, in detecting symptoms, that every physician would be perfect in his diagnostic approach, and with the exercise of the very best or the optimal, at least, of the control effort.

Mr. FOGARTY. Is the Federal Government doing everything it can in that field now?

Dr. HELLER. Mr. Fogarty, I think that the total effort in cancer, has not reached its peak. I think that any of us who are working at cancer control or any other disease-control program would say that we would like to see more and more effort expended because we are preoccupied with our interest. We are charged with that responsibility.

We must, and we do, recognize, of course, that while we think in this instance cancer has the highest priority, we certainly recognize that heart and mental and other disease categories are tremendously important and therefore, there has to be a determination by the Congress, and others, as to what approach should be made, and what

resources should be made available for this or any category. We shall have to do and we will do and are prepared to do the very best we can with what we have.

ADDITIONAL PROGRESS POSSIBLE UNDER EXPANDED FEDERAL CANCER PROGRAM

Mr. FOGARTY. I realize that, and I know you will, but tell me, what can we do that we are not doing in this field?

The reason I ask this question—and I do not know whether it is a reasonable comparison—but when we supplied the funds for 6 or 8 teams in tuberculosis, and when we supplied funds for these demonstration teams in every State for the application of sodium fluoride on children's teeth, we started what proved to be very worthwhile programs. That is what I had in the back of my mind. I was wondering if there is some way that we can either educate the people, or maybe educate the doctors who do not know the advances which have been made in that field, or what we can do that we are not doing now to at least help that other one-fourth that could be cured but are not.

Dr. HELLER. Mr. Fogarty, if the economy of the country would permit, we could do more, I would say, and we could proceed toward several opportunities simultaneously. I would be inclined, however, to emphasize certain ones.

For instance, at this juncture it is my personal opinion that there is much to be gained by acceleration of efforts in working with industry, working with State health departments, and working with others interested in the field of occupational and environmental health. I believe that enough facts are known now that can be applied in environmental cancer work, and we are proposing to undertake such on a quite determined scale this next year, with our present resources.

I believe we should, additionally, concentrate upon cervical cancer. I believe in our Memphis study, and in certain other studies we might get the answer in the next year or so as to whether this is as practical a public-health measure as we believe it to be. I believe, similarly, we could approach certain other of the disease sites, notably cancer of the stomach. I have been very much encouraged at some of the results we have had, Mr. Chairman, and gentlemen of the committee, in the last 20 years.

I believe you can see this chart. You will note 1914 as the period when we first began to get good records from State health departments, and the physicians began to report. From other information available to us in 1950, the last period of time for which we have the information, we see this yellow line, indicating cancer of the stomach, taking a decided decline.

I believe that now is the time to concentrate and further accelerate the rate at which cancer of the stomach is being controlled.

Mr. BUSBEY. Does your graph show numbers, or percentages, Doctor?

Dr. HELLER. It shows the deaths per 100,000 population. I am sorry; I should have identified it.

This is the number of persons who die with the disease in the conventional way of expressing it, "deaths per 100,000."

This happens to be for white women. Cancer of the stomach for men has gone down also.

In further answer to Mr. Fogarty's question, I would say we are concentrating upon certain procedures and techniques which have become available in the last few years and are accelerating the rate at which we control cancer of the stomach. To a certain extent, cancer of the intestines seems to be on the downgrade, also. This [indicating] is white males and this is white females.

You see certain trends in other sorts of cancer, notably cancer of the lung. We have concentrated upon that and upon certain other areas. In a number of them it looks very promising for the application of control procedures in the strictest use of the word "control."

Mr. FOGARTY. If you did concentrate to a greater degree than you are or can under this budget, do you have any hope that progress could be furthered?

Dr. HELLER. Yes, sir, I do. I believe that in any public health categorical control program acceleration of the rate at which we approach it with intelligence and reasonableness, acomplishes more. I think that is true in any such program.

Mr. BUSBEY. That is almost axiomatic, is it not?

Dr. HELLER. I think so.

Mr. FOGARTY. Not in all fields, but in this field I think it is.

CATASTROPHIC NATURE OF CANCER AS A DISEASE

Now in the report of the Wolverton committee I notice one paragraph, in talking about cancer, where it states:

> Problems of another kind have to do with the catastrophic nature of the illness as far as its financial impact upon the patient and his immediate family is concerned. Memorial Hospital in New York City reports that the cost of its 10,000 patients a year is between $4 million and $7 million, and that the bill for the whole country would be $300 million to $400 million.

Have you heard that before?

Dr. HELLER. Yes, sir; I have heard of that before.

Mr. FOGARTY. Continuing the quotations:

> * * * This not only represents a financial burden that many individuals simply cannot meet, but means a loss of $12 billion annually in man-hours of work that the country needs. To meet this problem, several types of insurance have been developed, but premiums are high.

That is just what I thought.

> * * * There are some organizations which make money grants to individuals, and public hospitals are open to the indigent patient. But this still leaves unsolved the problem of the salaried worker who must pay for cancer illness, and the social and psychological impact upon him and his family in such cases.

As I think of it, cancer may be one of the most serious catastrophic diseases.

Dr. HELLER. Yes, sir.

Mr. FOGARTY. A person can linger on and it will be catastrophic if he is the breadwinner of the family—the man of the house.

Dr. HELLER. There seems to be a trend, Mr. Fogarty, that whereas there was a slight increase in the number of deaths in women from cancer, now it seems the increase is heading toward more deaths in men from cancer than previously. So the man usually being the breadwinner, that is quite correct.

Mr. FOGARTY. In many cases, a person lives for quite awhile but has to be in bed and not able to work.

Dr. HELLER. That is right. This is certainly a serious and important problem and is an activity of those health officers and others who are particularly interested in the economic aspects of disease.

Mr. FOGARTY. I can see where insurance would be high, and about the only answer is to find a cure.

Dr. HELLER. Yes, sir.

Mr. FOGARTY. That is the real answer, is it not?

Dr. HELLER. That is what we think.

Mr. FOGARTY. Reading further from this report they say:

> Another very real and practical problem is the shortage of scientific personnel both for research into cancer and for its treatment. To encourage students to enter the work, both public and private agencies have been expending huge sums for grants usually to institutions where individuals are carrying on work whose promise is such as to merit this support.

So this committee seems to think there is still a great need for scientific personnel for research in cancer.

GRANTS FOR CONSTRUCTION OF RESEARCH FACILITIES

Dr. HELLER. I think a year ago someone from outside the Government appeared before our committee recommending grants for construction of research facilities. Do you remember who it was? Was it Dr. Cameron?

Dr. HELLER. Mr. Fogarty, I am not sure. It was either Dr. Cameron or Mr. Adams.

Mr. FOGARTY. I know Mr. Adams did; I think also Dr. Cameron did. James S. Adams is a general partner in the banking firm of Lazard Freres & Co. in New York City. He made his statement as chairman of the research committee and former chairman and present member of the executive committee of the American Cancer Society and a member of the National Advisory Cancer Council. He said:

> We are recommending that the Bureau of the Budget allowance of $4 million for this purpose be increased to $5 million, and I would like to recount, briefly, a résumé of this construction program as it was originally contemplated.

He meant in the Truman budget there was $4 million, I presume, for construction of research facilities for cancer last year.

Dr. HELLER. That was in the original Truman budget, I believe.

Mr. FOGARTY. That was the budget we had before us when we held the hearing a year ago.

Dr. HELLER. That is correct.

Mr. FOGARTY. So Mr. Adams asked for an increase to $5 million for the construction of research facilities for cancer, according to his statement on page 260. He said:

> The Congress and particularly this committee several years ago was fully aware that the necessary expansion of this program and the utilization of the talents of the scientists who are being trained and other facilities which are being made available would be hindered unless additional laboratory space and facilities were provided in which they could carry out their work.
>
> Accordingly, back in 1947 and 1948 when this program was originally being set up, a careful survey indicated that the sum of $25 million was the least amount which would provide adequate additional physical facilities at hospitals, laboratories, medical schools, and the like where the cancer research work which we were preparing to support could be undertaken. We fully expected at that time, that this $25 million would be pump-priming money and that additional support

for these facilities would be available from other sources. For the fiscal years years 1948, 1949, and 1950 Congress appropriated $16,303,000 of this total of $25 million. There have been no appropriations for construction in 1951, 1952, or 1953 though we have advocated the completion of this program in each of the last 3 years.

To the $16,303,000 already appropriated, and very largely expended, I am glad to tell you that the expectation we had as to the availability of other funds was fully realized. For every Government dollar six additional dollars have gone into building from private and other local sources. So for the $16,303,000 of Federal funds there has been nearly $100 million of additional funds, or a total building program of upward of $120 million resulting. The $16,303,000 was allocated to 55 different construction projects at 49 institutions in 27 States; 46 of these projects have been completed and it is expected that the remaining 9 will be finished this year.

In spite of the fact that no new funds have been available for the past 3 years there are presently applications on file from 46 institutions totaling some $15 million whose needs were not fully met from the original $16,303,000. It is for these additional research facilities that we now advocate an appropriation of $5 million for fiscal 1954. It is our hope that this appropriation will be followed by $3,700,000 in the next year to make the original total of $25 million.

We believe strongly that the Congress should reinstate the construction program in this modest way in order that we may consolidate the gains which have already been made in this fight against cancer.

He made that statement a year ago. To your knowledge, Doctor, during the past year have the conditions changed to any great extent regarding the need of research facilities?

Dr. HELLER. No, sir. If it were the will of Congress that there be construction grants, they would render considerable assistance to the research effort.

Mr. FOGARTY. Who was it said yesterday that Senator Thye made a request of the Department for a survey of construction facilities?

Dr. VAN SLYKE. I referred to that.

Mr. FOGARTY. Did you make a report to Senator Thye, or the Senate committee?

Dr. VAN SLYKE. The report was made to Senator Thye and his committee by the Secretary at Senator Thye's request.

Mr. FOGARTY. If Senator Thye has no objection, could you furnish us copies of that report?

Dr. VAN SLYKE. Yes, sir.

CURRENT NEED FOR ADDITIONAL RESEARCH FACILITIES

Mr. FOGARTY. How much did the survey show was needed for the construction of research facilities for cancer?

Dr. VAN SLYKE. Something over $154 million in total. I do not recall, Mr. Fogarty, what the breakdown was. I can supply that.

Mr. FOGARTY. Was it broken down?

Dr. VAN SLYKE. Yes, sir.

Mr. FOGARTY. It seems to me, with unemployment going up and up in the country, this construction would be not only an aid in cancer research, but also would be helpful in reducing unemployment that exists in the country. That is my own personal opinion.

LUNG CANCER

Mr. FOGARTY. A year ago Dr. Rhoads testified that many doctors seemed to think there is a definite possibility of smoking causing some lung cancer, but no one seems to be sure. A study is being made now by the American Cancer Society.

Dr. HELLER. And by the National Cancer Institute in cellaboration with the Veterans' Administration.

Mr. FOGARTY. But nothing yet has developed?

Dr. HELLER. Nothing yet has developed sufficiently to arrive at a conclusion.

Mr. FOGARTY. What about the incidence of lung cancer in males; is that still going up?

Dr. HELLER. Yes, sir. This chart [exhibiting] is for white males for the period 1914 to 1950 in which we see the red line indicating cancer of the lung which has increased something of the order of about 25 times.

Mr. FOGARTY. That has gone up considerably in comparison to all of the others, has it not?

Dr. HELLER. Yes, sir. Cancer of the lung in women for a comparable time has increased slightly better than five times.

Now there are probably many factors involved in the increase of lung cancer. We are attempting to study, to analyze, to ascertain the places of these factors and which ones are causal, if any. I do not believe it is correct at this time to say that heavy cigarette smoking or the use of tobacco generally is the cause. It may be that tobacco has to be considered as an important factor. Preliminary statistics tend to show that a person who is a heavy cigarette smoker has a greater risk of getting lung cancer than a nonsmoker; but that does not say that smoking is a definitive cause, as we interpret it.

Mr. FOGARTY. Give me those figures again on lung cancer. That has gone up from 1914 to 1950——

Dr. HELLER. For white women, it is something better than five times.

Mr. FOGARTY. And in men how much?

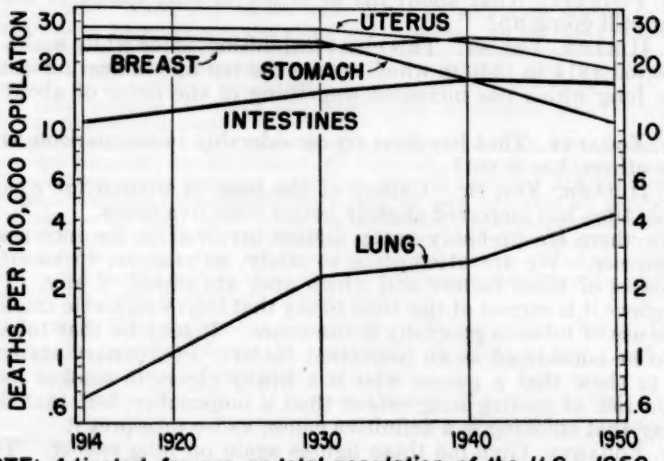
Dr. HELLER. In men, it is something better than 25 times.

Mr. FOGARTY. Can you put those charts in the record?

Dr. HELLER. I will.

(The charts referred to follow:)

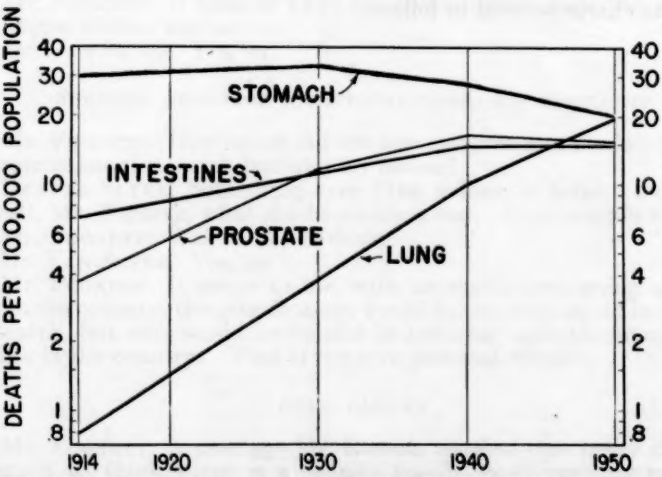
CANCER DEATH RATES FOR SELECTED SITES
WHITE FEMALES - 1914-1950



NOTE: *Adjusted for age on total population of the U.S.—1950*

NCI-8-54

CANCER DEATH RATES FOR SELECTED SITES
WHITE MALES - 1914-1950



NOTE: *Adjusted for age on total population of the U.S.—1950*

NCI-3-54

CURRENT STUDIES OF LUNG CANCER

Mr. FOGARTY. You are working on a study of lung cancer at the present time at the Institute?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. In collaboration with the Veterans' Administration and the American Cancer Society—all three of you?

Dr. HELLER. Yes, sir. In a sentence or so, I shall try to indicate the Government study.

The study is an attempt to find out from veterans of World War I, who are beneficiaries of national service life insurance, their smoking history or use of tobacco. There are something better than 300,000 veterans of World War I who are in the proper age group that one might expect to find lung cancer. Their questionnaire histories will indicate the degree to which they use tobacco in its several forms.

These men die at a certain predictable rate. In order for someone to get life-insurance benefits, the records must come in properly to the Veterans' Administration. We have a cooperative arrangement with that organization whereby the questionnaire sent back to them comes to us, and there has been a very high degree of return. I cannot cite it to you at this particular time, but I can furnish if for the record. The study, then, as these men die will enable us to ascertain from the death certificate the cause of death and, if there is anything questionable, to go back to the medical source and find out if cancer of the lung was present. And some who die in veterans' hospitals have post mortem examinations in which the cause of death without any doubt is established.

Therefore, we believe in a few years we will have the facts on the occurence of lung cancer in men who may or may not be users of tobacco. Heretofore reports have been of the occurrence of heavy cigarette smoking in people who have died of lung cancer; so it is necessary epidemiologically to get more definite information before we are in any position to say that the use of tobacco is as important a factor as some believe it may be.

The study by the American Cancer Society is somewhat a companion study in that they are depending upon volunteers who will report upon men above certain age groups on whom smoking histories have been obtained and how those people died. That information is transmitted to the American Cancer Society. This is a similar size study and the results will parallel fairly well the experience we will get from this Veterans' Administration study.

Mr. FOGARTY. Are there any other activities in this field which you think should be developed more than they are at the present time?

CHEMOTHERAPY PROGRAM

Dr. HELLER. The current chemotherapy program, the so-called leukemia and related cancer diseases, I think, is one I mentioned. As you gentlemen are aware, the chemical treatment of cancer, especially leukemia and allied cancer diseases, looks to be a very exciting field, and one which may yield a very profitable return. In accordance with the current scientific judgment and with the expressed desire of the Congress, extensive studies have gone into this area. I am happy to say we have under way a coordinated program of chemotherapy

in which there are embraced a number of the best institutions, or institutions interested in this area that have the experience, the facilities, and the expert research knowledge in general. They have programs which can accelerate the rate at which we get information, and there is an exchange of information, or a process whereby information may be exchanged, which will be of immense value to men working in that field.

We hope new compounds and drugs will stem from this study and those drugs can quickly and accurately be tested for toxicity and effectiveness and then transmitted to the human being; and it is hoped it will result in finding a more effective chemotherapeutic agent than we now have.

Mr. FOGARTY. I think I read in the newspaper or heard on the radio that Dr. Rhoads made a report before some medical group about the hope for children with leukemia and said a few years ago they were just sent home and were told how long they could expect to live. Now they can be treated so as to prolong their lives. He cannot demonstrate they are cured, but he could see in the future that we might have something comparing to insulin for diabetes.

Dr. HELLER. Dr. Rhoads has been very optimistic and has been very hopeful of the future in the chemical treatment of cancer. Some do not share that enthusiasm with him. Dr. Rhoads said, I believe—I am not sure, but at least I saw a statement that whereas several years ago only 5 percent of children with acute leukemia lived 1 year after onset of the disease now 50 percent of such children live at least 1 year after the onset.

Mr. FOGARTY. He also said the longer you can keep a child living, the better is the chance for eventually finding out what the cause of it is.

Dr. HELLER. Yes, sir.

COMMITTEE ON CANCER DIAGNOSIS AND TREATMENT THERAPY

Mr. FOGARTY. In the statement filed by Dr. Cameron last year he said:

> Before turning to the subject of cancer control, I desire to call the committee's attention to the inclusion, in the research grant-in-aid total of $7,100,000, of the sum of $200,000 specifically earmarked for investigating questionable, unorthodox, or controversial treatments for cancer.

That is the American Cancer Society's recommendation for the budget, I presume.

> This is an increasing problem, as the committee must be aware, for within the last 2 years the Congress itself has listened to claims of the alleged effectiveness of a number of cancer treatments and to the inevitable charges of apathy, intolerance, and collusive obstruction on the part of organized medicine.
>
> Two years ago, certain interested agencies, such as the National Cancer Institute, the American Cancer Society, the American Medical Association, and the Pure Food and Drug Administration, sponsored the formation, within the National Research Council, of the Committee on Cancer Diagnosis and Treatment, the purpose of which is: (1) To test or arrange for the proper testing of any new, unproved and unaccepted method of diagnosing or treating cancer, and (2) to analyze the results of such tests so as to reach a sound, dependable conclusion as to the value of any given treatment and its place in medical practice. Given an

adequate staff and the necessary resources, this committee is now prepared to fulfill its function and, in doing so, to render important, indeed lifesaving, service to the people of this country, by demonstrating the worthlessness of treatments which are of no value and, on the other hand, by establishing the merits of such new treatment methods as are effective.

Today our people have easy access to treatments for cancer which are of no value, or the value of which is a matter of dispute. They are entitled to know the facts, and getting these facts is the job of the Committee on Cancer Diagnosis and Treatment, for which the earmarked appropriation of $200,000 is requested.

What is that Committee on Cancer Diagnosis and Treatment doing?

Dr. HELLER. The Committee on Cancer Diagnosis and Treatment Therapy has been in operation now for approximately 2½ years. The committee has a full-time medical secretary. The chairman and the members are distinguished experts in the several fields of cancer diagnosis and therapy. There have been referred to this committee numerous instances of cures for cancer. Those have been sifted. There has been extensive correspondence between the secretary and the proponents of the cures. In some instances a so-called cure has died more or less a natural death; others have proceeded to the point that they are in the stage of testing, or just before testing, or attempting to arrive at the conditions for testing.

To date, I believe there have been no instances in which testing has been carried to an ultimate conclusion; but there is hardly time yet for that.

This committee is a very useful committee, Mr. Fogarty and gentlemen. Since it is a nongovernmental, nonpartisan, nonvested interest group, it can review, and I believe very objectively and effectively, the several claims, refer them to the appropriate institution or others who may have an interest or skills in this area for review. The committee is of great value to us as a consultant body.

Mr. FOGARTY. According to Dr. Cameron, however, he does not feel they are doing enough.

Dr. SHANNON. I am on the executive committee of the Division of Medical Sciences of the National Research Council, and this has come up for discussion on several occasions.

It would appear that the most important single value of this committee is its simple existence; because, as it has been found out since setting up the committee. that most cures will never be tested by the committee because the individual proponent of the cure is afraid to have a test performed.

(Discussion off the record.)

Mr. FOGARTY. Is there anything we can do to help on that?

Dr. SHANNON. As I said, just to keep the committee in being and to have its facilities available to test a cure, I think, is the most important single thing. I do not believe any other activity sponsored by the National Cancer Institute alone would be particularly helpful in the matter. I think the best weapon we have is more effective education. As in any chronic disease where there is known to be no sure cure, people are apt to become panicky and a panicky person, let us say, has no judgment and can be taken in by an unethical individual. So the only way to get at them, really, is through the educational process and this should include physicians as well as the general public. Part of these cures gain their reputation by a false diagnosis where, for instance, an ulcer is diagnosed as cancer and the ulcer is cured and there results one more testimonial for that par-

ticular cancer cure. So better diagnosis by physicians and better education of all of the people is one way to combat bad medicine, and this is just one aspect of bad medicine.

Mr. FOGARTY. You do not agree with Dr. Cameron, then?

Dr. SHANNON. I don't believe that the committee should undertake the general testing of anti-carcinogens. Provision is already made for such work in the Cancer Institute programs, particularly in chemotherapy and endocrinology.

The guidelines Dr. Cameron proposed for that committee are I think much too broad and would duplicate really the programs within the Institute's. If, on the other hand, it is limited to testing quack remedies, I do not think it would ever become operative, because I do not think any quack will make his remedy available for such testing.

Dr. HELLER. I do not know that I made it clear, but the Cancer Institute is one of the three sponsors or of the several sponsors making funds available for the support of this committee.

BUDGET RECOMMENDED BY AMERICAN CANCER SOCIETY

Mr. FOGARTY. Yes; he said that you were.

I do not remember offhand, but it seems to me the American Cancer Society recommended a budget of some $25 million or $27 million for this fiscal year.

Dr. HELLER. I am not sure of the amount, but $26 million it seems to me.

Mr. FOGARTY. Including $5 million for construction.

Dr. HELLER. I am not sure of the amount.

Mr. FOGARTY. Do you have any comment on their recommendations, Dr. Heller?

Dr. HELLER. No, sir. I do not know the way in which they arrived at it. I seem to recall that they did consider construction grants.

Mr. FOGARTY. I have it before me now. I see here that they recommended $26,352,000, and on research projects—this is interesting—on research projects, the one you are cutting the most this year, they recommended increasing that in this fiscal year. They recommended an increase from $4,734,000 to $7,100,000 for research projects, and now here you are cutting this activity down by $669,000.

On research fellowships, they requested almost a 100-percent increase, from $514,000 to $900,000, and you are recommending a decrease of $125,000.

So the two big increases the American Cancer Society recommended last year you people are cutting. Well, I hope those cuts do not stay in the bill.

Now, Doctor, suppose the committee raised the amount for research projects by $1 million, how would you apply that money? If we raised this $6,700,000 to $7,700,000 and did not take it off anywhere else, but just gave you an increase, where would you apply that increase of $1 million to research projects?

Dr. HELLER. We could use that, sir. On the basis of experience, I would think there would be some worthy projects which would come in chemotherapy, some projects on radiation, supervoltage, and many projects on basic laboratory work which would be worthwhile. I think we could use it well.

Mr. FOGARTY. I think so; because if the American Cancer Society recommends an increase from $4,700,000 to $7,100,000 this year, they must have had some good reason to make those recommendations. I am sure a man like James Adams would not be coming down to the Congress of the United States recommending this increase in the budget, with his background, if he did not honestly think that was going to pay off. That is my opinion of James Adams, knowing his background.

That is all, Mr. Chairman.

COLLABORATION WITH FOOD AND DRUG ADMINISTRATION

Mr. BUSBEY. Dr. Heller, you said something about the Food and Drug Administration confiscating certain ray machines. How much work does the Cancer Institute do in collaboration with the Food and Drug Administration?

Dr. HELLER. We have experienced a very worthwhile and very pleasant and I think profitable working relationship with the Food and Drug Administration. We are in almost daily telephone conversation and frequently personal consultations with the members of the Food and Drug Administration, usually with medical officers. They depend upon us for certain advisory services in connection with the investigations of people who ship unlawfully compounds designated as cancer cures interstate. Food and Drug officials ask our advice and for any information which we can give concerning the drugs in question, if it does not come in the privileged communication category. In general we work very closely with them on these very troublesome and difficult cancer therapy cases.

ULCER RESEARCH

Mr. BUSBEY. You made some reference, Dr. Shannon, to the possibility of ulcers being diagnosed as cancers which in that event would be easy to use as one case of cancer which has been cured. That just brought to my mind that there are certainly many cases of ulcers around the country, and I wondered if you are doing any research in that field.

Dr. SHANNON. The only thing being done seriously there is in relation to the causes of the ulcers. For instance, the common ulcer of the leg in the overage group is due to varicose veins. Other ulcers are due to very slow infections, particularly due to fungi: "Ulcers" is just a generic term for a sore, if you will. They can be caused by so many things that it would be impossible to undertake a serious attack on ulcers per se.

TOBACCO COMPANIES' RESEARCH PROJECT ON LUNG CANCER

Mr. BUSBEY. We were discussing lung cancer and the survey which was being made by the National Cancer Society and the Cancer Institute and the Veterans' Administration. It seems to me I read in the papers that the tobacco companies, or at least some of them, have appropriated a very large sum of money and have retained some doctors to make a survey for them. I certainly don't want to prejudge any survey that the tobacco companies will make, but I

would be very much surprised if their report on their surveys showed any considerable detrimental effect to lungs by smoking cigarettes.

Dr. SCHEELE. May I say a word in defense of the tobacco companies and what they are trying to do? They are setting up an impartial outside body of scientific advisory groups, and I think they are attempting to find a scientist to head up their program. Actually they will be providing money for research to an organization which they do not control, but the organization will be a private body controlled by a group of scientific advisors, men of great integrity in the research field in the United States in order that they will avoid bias, or to make the study objective.

Mr. BUSBEY. Do you know if they are going to do research on the same items that you and the Cancer Society will be doing?

Dr. SCHEELE. I would doubt very much that they would go into the type of study, for example, that Dr. Heller or the Cancer Society are doing, the sort of interview type of fact-finding work.

Mr. BUSBEY. This research team set up by the tobacco companies and the research team set up by the National Cancer Institute and the Cancer Society and the Veterans' Administration, are going into two different fields and you will have different conclusions or at least they will not be strictly comparable.

Dr. SCHEELE. Actually the field is a very broad field. The matter of asking people for smoking histories and then matching that smoking history against the later occurrence of cancer, perhaps death from lung cancer, is one approach.

Mr. BUSBEY. But that is not the only approach this team is making, I hope.

Dr. SCHEELE. There are many other approaches and those approaches lie in studying tobacco and tobacco smoke itself and attempting to identify substances which might cause these effects. There is quite a range of research which an organization of that sort can support, even as we are supporting through research grants in particular, a rather broad range of research on the problem.

It is not through our joint study with the Veterans' Administration that our whole approach is being made. There are plenty of problems in the smoke field and its relationship to cancer for everyone. There are many opportunities and actually additional financing which the tobacco companies will put up will be very welcome inside of these circles in helping them do more research.

Mr. BUSBEY. I am certainly not attempting to tell them what to do as long as they are furnishing the money, but I should think, in order to resolve it to the full satisfaction of the smoking public, that they would consider putting at least one or two of these outstanding authorities that are so positive that smoking does cause lung cancer on this research team. Then if the study convinced them they were wrong it would really be convincing to the smoking public.

Dr. SCHEELE. I do not believe they would ask anyone to serve on their advisory body who had shown any strong leaning one way or the other as a result of the research he had done. On the other hand some of the men who published reports would be useful to their research inasmuch as they are objective scientists and they would be useful people in the overall program.

May I go off the record?

Mr. BUSBEY. Yes.

(Discussion held off the record.)

Mr. BUSBEY. I want to say that I have the highest regard and respect for Mr. Fogarty, who has served on this committee longer than any other member, and I am very glad that he is on this committee because his knowledge of the work is invaluable. I am sure everyone is with him in his desire to see that progress is made in these research programs that are trying to find answers to these diseases which take so many lives.

I noted he was quoting from the report of the Wolverton committee. I have no quarrel with the conclusions of that report. With regard to need for additional research and additional expenditure of money, I think it was almost a foregone conclusion that their hearings would show that. I do not know of anyone who would volunteer or anyone that the committee has solicited to come in before it to testify who would say there isn't need for additional research and additional funds. I am hoping that some day there will not be so much money required for the defense of our country, so that we can justifiably appropriate sums of money for all of these worthwhile programs far in excess of what we are now appropriating.

When we had men like Dr. Rhodes and Dr. Farber before our committee, we have always been very appreciative of having them here, and I have expressed my appreciation on the record in past years. The people of the country as a whole as well as the committee are indebted to them for taking the time out of their busy lives to express such an interest and give this committee the value of their knowledge. But they are interested in this work, and extremely so because it is the field of operation they are in. To expect Dr. Rhodes, Dr. Farber, or anyone in a like position to come in and speak against these appropriations or even not speak for additional appropriations would almost be like going into a store to buy a pair of shoes and expecting the shoe salesman to tell you not to buy the pair of shoes because they are no good.

They are down here pleading for additional appropriations as well as giving us the benefit of their knowledge, and I am in 100-percent accord with their objectives and the things to which they are testifying; but I think as an appropriation committee, we cannot exclude all the other factors which affect the economy and the welfare of our country. We have to try to do the best we can to carry forward these programs by allotting as much money as possible in consideration of other factors.

I certainly don't want anything in the record to stand as indicating that the Cancer Institute's budget is going to allow them substantially less money to spend in 1955 than they had in 1954; in fact, if you will look on page 142 of the committee print, you will see that the total expenditure under the 1955 budget request is $19,700,000 as compared with $19,280,000 for 1954, or, in other words, they will have for expenditure in 1955 $420,000 more than in 1954. For that reason I do not think that the program will be crippled if the amount of the budget is allowed. Of course what recommendation the committee will make in the bill is another thing.

As everyone knows, this committee last year recommended more money than was recommended by the Bureau of the Budget. The

recommendation of the committee will be determined only after taking all factors into consideration, I am sure.

Any further questions?

Mr. FOGARTY. I do not agree with the chairman at all so far as his analysis of this appropriation is concerned because the thing I am looking at now is the justification on page 12–2 for the National Cancer Institute which shows a cut of $669,000 in grants for research projects. The American Cancer Society and other individuals recommended a huge increase in this particular activity a year ago, but we find here a cut of $669,000.

I don't care what the actual expenditures are; this is a cut in this activity. When we talk about doctors coming in here I also mention men such as James Adams, who is a very responsible citizen in this country, and I think everybody at this table knows who he is.

Last year before this committee I asked this question, which appears at page 193:

> Mr. Goldblatt, this is the first time I have met you. I have heard about you and the work you have done with voluntary agencies over the past 7 or 8 years. I presume, from what I have heard, that you are a man of substantial means and, if you are, you must be a substantial taxpayer at the same time.
>
> Mr. GOLDBLATT. Yes.
>
> Mr. FOGARTY. From the viewpoint of the ganeral taxpayers of the country, do you think they are satisfied to pay taxes for this type of appropriation?
>
> Mr. GOLDBLATT. I made the statement before that if we taxed everybody a certain percentage and told them what would happen to the extra tax, they would all be very happy to pay for medical research. I cannot express to you how backward we are in medical research.
>
> Dr. WHITE. You mean in addition; that is, if they were asked, they would contribute more for medical research?
>
> Mr. GOLDBLATT. That is right.
>
> Mr. FOGARTY. I cannot see that possibility right now. The only thing we are concerned about is the present budget, and there is a great demand all over the country to cut down Federal expenditures. Do you think the general public would be in favor of cutting appropriations that dealt with the health of the people of our Nation?
>
> Mr. GOLDBLATT. I feel you are excused a little bit for the Federal budget, because you do some of this research work. In other words, we hope more money will go into the present budget for that purpose. We all know a lot of money is being spent, and you have to cut down. That is the thinking of every businessman I talk to. I am in the 80-percent bracket, and naturally I am anxious to have taxes reduced, but I feel we are not doing enough research work. I know that I and everybody else would be very happy to pay more taxes for the kind of research we are talking about.

I submit that everybody I have talked to is of the same opinion. I don't care how much money we are spending on national defense. National defense never should be considered as an argument against these appropriations at all, because I think our first line of defense is the health of the people of our country. When we have cuts such as $669,000 against these various research projects that is a step backward and not forward. I don't care what anybody says about it.

I hope when these individuals, who are not working for the Government, come in here that we ask these direct questions of them. I am sure the record will show that there is a need for appropriations in this field by the Federal Government and if we do appropriate the money we are going to save the taxpayers' money in the end by these appropriations.

Mr. BUSBEY. May I say to the gentleman from Rhode Island that I concur 100 percent in the statement that there is a need and we are

not doing as much in research as we should. I have always taken that position and I presume I always will. So there is no disagreement between the gentleman from Rhode Island and myself on that.

Mr. FOGARTY. I agree with you there, but I thought you said there is not much we can do about it because of our financial situation. I am not that much concerned about our financial situation. If I am sick I will borrow as much money as I can to get the best medical attention I can. Thank God I can get good medical attention. However, there are people in this country who are not as fortunate as you and I are in this regard. This is something we would be doing for the people of our country.

I am not too concerned about the Bureau of the Budget or the budget not being balanced when it comes to appropriating for research in cancer, heart, and these other fields. I do not think the people of this country are concerned about it, either, so much as some of these agencies would lead us to believe. It is not that important. It is more important to find the answers to some of these things and in that way we will be helping everybody living today.

DYESTUFFS AS POSSIBLE CAUSE OF CANCER

Doctor, there is another subject I wanted to ask you about. Do these dyestuffs used in preparation of foods cause cancer?

Dr. HELLER. That is a question I am not prepared to answer with any degree of authority or assurance at this time. In Germany it has been claimed that certain food adulterants have been responsible for cancer. To the best of my knowledge such has not been demonstrated conclusively in this country although suspicion has been directed at some. I am not prepared to answer that with any authority.

Mr. FOGARTY. Is there any study going on at the present time?

Dr. HELLER. There are some studies going on. Doctor Hoeper of our staff has been interested in this particular area. I do not believe at this moment he has any studies going on in dyes which are added to foods.

There is some work going on in some place in the Middle West in this area. If you wish I will look into it further.

Mr. FOGARTY. Has there been any investigation by any committee in Congress concerning the use of these dyestuffs in preparation of food?

Dr. HELLER. Mr. Fogarty, I believe I am correct in saying that there has been a committee of Congress which has been investigating generally the food situation, food adulterants, and food substitutes.

Mr. FOGARTY. Are you referring to the so-called Delaney committee?

Dr. HELLER. Yes.

Mr. FOGARTY. That was a couple years ago?

Dr. HELLER. Yes. They had hearings. I am not informed as to the final conclusions of the committee but I do know they had extensive hearings.

Mr. FOGARTY. Did Mr. Keefe serve on the committee?

Dr. SCHEELE. I believe it was planned Mr. Keefe was to serve on that committee when he was taken sick and returned home.

Mr. FOGARTY. I know he had made several speeches on the Floor on this general subject. I do not recall his saying anything about dyestuffs, but I know he talked about chemicals in foods.

EFFECT OF TRANSFER OF PREDOCTORATE FELLOWSHIP PROGRAM

What effect did the Bureau of the Budget have on your predoctorates when they transferred the funds budgeted for predoctorate fellowships to the National Science Foundation? How did it affect the cancer program?

Dr. HELLER. There were $111,000 from our fellowship item, and something on the order of fifty-odd predoctorate fellows were deleted.

Mr. FOGARTY. Give me the figure again.

Dr. HELLER. Of the order of $111,000. I believe there were about 50 or slightly better than 50 individuals. I can correct that for the record. If my memory serves me correctly, it is something on that order.

Mr. FOGARTY. What is the effect of that reduction this year? What will the future effect be as you see it?

Dr. HELLER. We have been concerned with the recruitment, the furnishing to the scientific potential of the country well-trained men in the several medical sciences which to us are of immediate and very vital aid to cancer research.

There has to be a consideration, as I see it, of the potential extending down into the predoctorate area. We must encourage young men and women of the bachelor category, and perhaps even before that, with the knowledge and skills to enter the field of medical sciences.

If we diminish the predoctorate group, and they turn to other activities, very needed activities if you please, such as engineering and mathematics and some of the other sciences, if we do not have young men and women entering the sciences leading toward medical research, we are then deprived of the opportunity of having postdoctorate trainees. The reservoir is thus dried up to a certain extent.

Mr. FOGARTY. They should be considered together, the predoctorate and postdoctorate?

Dr. HELLER. Yes. We get a certain percentage of the predoctorate people subsequently as postdoctorate fellows.

TEACHING GRANTS

Mr. FOGARTY. Are we giving a $25,000 grant to each of the 4-year medical schools in the country for teaching in the cancer field?

Dr. HELLER. Yes.

Mr. FOGARTY. How many are there, 73 or 74?

Dr. HELLER. Seventy-seven 4-year medical schools, 6 osteopathic schools which are 4-year schools, 42 dental schools, I believe, and six 2-year medical schools receiving support.

Mr. FOGARTY. How is that program working out?

Dr. HELLER. Very well, sir.

Mr. FOGARTY. Has there been any trouble in it at all?

Dr. HELLER. Only minor difficulties, misunderstandings which the schools themselves have ironed out through their cancer coordiators.

Mr. FOGARTY. The only control the Federal Government has over these grants is to see to it that they are being spent for that specific purpose?

Dr. HELLER. The usual fiscal controls; yes.

Mr. FOGARTY. In other words, we do not just give them $25,000 and forget about it?

Dr. HELLER. We keep very close contact liaison with them in a very friendly way. We do not exercise any judgment determinations as to effectiveness of teaching methods and results. We serve in an advisory capacity and attempt to give the schools the benefit of any procedures, advice, and liaison that we can.

Mr. FOGARTY. How long has this been in effect?

Dr. HELLER. Some of the schools are in their seventh year, sir.

Mr. FOGARTY. Seven years?

Dr. HELLER. Yes, sir.

Mr. FOGARTY. You believe it is paying off?

Dr. HELLER. I do, sir. I believe it is a splendid program.

Mr. FOGARTY. How has it paid off?

Dr. HELLER. It has paid off, Mr. Fogarty, in the sense that young men from the very day they enter medical school are brought into contact with cancer in all of its facets. They are better informed so that when they become full-fledged physicians out in a specialty, or general practice as they may elect, they are in a position to keep up and to be receptive to the several means of getting information to them. We can keep them better informed on cancer, they have additional skills, they manage people better, they recognize cancer earlier, and they can institute better remedial services and thereby save lives.

Mr. FOGARTY. I believe that is all, Mr. Chairman.

BUDGET FOR GRANT RESEARCH AND DIRECT RESEARCH

Mr. BUSBEY. I do not want to conclude the hearings this morning without clearing up this item of the cut of $669,000.

I am sure Mr. Fogarty is sincere in his contention, and I know he gives me credit for the same sincerity in my contention, but is not this $669,000 largely offset by the increase of over $590,000 in direct-research operations?

Mr. FOGARTY. That is a different program altogether.

Mr. BUSBEY. But it is all research on cancer.

Mr. FOGARTY. But a different kind of research.

Mr. BUSBEY. The only difference is that one is grants to non-Federal people or institutions for research and the other is direct research operations of the Cancer Institute.

Mr. FOGARTY. I cannot give you a categorical answer but Dr. Heller should explain that. As I look at it it is not the same.

Mr. BUSBEY. I don't want the record to stand that we are cutting research by $669,000 because I do not think we are.

Mr. FOGARTY. We are cutting it in this category.

Mr. BUSBEY. In one field but not overall.

Mr. FOGARTY. I think the Congress when we started this program knew it would cost more money to operate. We didn't say at the time that this clinical center would take care of all research in this country and we were going to cut out all these other categories such as research grants, grants to medical schools and everything else. That is what you are trying to do now. You are trying to tell Congress "We have this clinical center now and we can knock off seven

or eight hundred thousand dollars from research grants to take care of the cost of the new clinical center.

Mr. BUSBEY. I will concede the point that there has been an adjustment, but the way the record was made it seemed to me that it would show we were cutting research generally by $669,000.

Mr. FOGARTY. No. The justifications we have show an overall cut of $374,000.

It shows an increase in direct operations for research, which is the Clinical Center in Bethesda, of $590,000. It also shows a cut in the teaching of medical subjects of $130,000, research fellowships $125,000 cut, and a cut of $669,000 for grants for research projects. That is a cut; there are no ifs, ands, and buts about it.

Mr. LARMON. There has been an increase of $590,000 and provision for research at the Center.

Mr. FOGARTY. Certainly. I think that should be and I think we ought to inform the Congress next year that there will be another increase because we have 500 beds out there that won't be fully utilized until 1956. Congress knew 8 years ago that this would cost more money. If we expect to operate that building with 500 beds it will cost a lot of money.

I do not want to go to the Congress and say it will cost another $600,000 next year for cancer and we will take it off of grants for research and training. I don't think Congress will stand for that. I don't think that was the intent or purpose of Congress to operate it this way. To my knowledge it was not.

PENALTY MAIL AND OTHER ABSORBED COSTS

How much penalty mail costs are you required to absorb in the Cancer Institute?

Dr. HELLER. I am not sure of the figures, sir. Mr. Harlow perhaps can give you that.

Mr. HARLOW. Cancer penalty mail estimated on an annual basis is $2,700.

Mr. FOGARTY. $2,700?

Mr. HARLOW. Yes.

Mr. FOGARTY. What about ingrade promotions?

Mr. HARLOW. I don't have that figure, sir.

Mr. FOGARTY. Can you put it in the record?

Mr. HARLOW. Yes.

(The information requested is as follows:)

The estimated cost of within-grade salary increases for 1955 is $64,600.

Mr. FOGARTY. Are there any other costs which you have to absorb in the coming year, other than those just mentioned?

What about your security program?

Dr. HELLER. I cannot answer that, sir.

Mr. FOGARTY. Any other costs you are required to absorb?

Dr. HELLER. None I can think of, sir.

Mr. FOGARTY. Well, those are further reductions in this program even though they are small.

I know there is also an increase of $590,000, but that is for the clinical center. Congress was told it would cost money to operate

this center, and we will be called upon to increase that sum next year. I do not believe in taking away from other activities in this program unless it can be shown that there is less need for these activities, that is that the death rate is lower, the incidence is going down, or there is some other specific factor they can point to, to show this need no longer exists.

If they can show that there is no longer such a need, I will not only take $600,000 out but $1,600,000 or $6 million. But until the time comes when you people can show the need no longer exists, then I am not for cuts in these appropriations for research projects such as this cut of $669,000 that is before us at the present time.

Mr. LARMON. There can be varying opinion, obviously, on the amount that should come from any particular source in attempting to meet the problem.

Mr. FOGARTY. What is that?

Mr. LARMON. There can be varying opinion with regard to the amounts that should come from any particular source of funds to meet the problem, that is Federal, State, and private agencies. That is a matter of individual opinion.

Mr. FOGARTY. What do you think the desirable degree of Federal expenditures is?

Mr. LARMON. It is simply a matter of particular judgment in terms of the total.

Mr. FOGARTY. Whose judgment?

Mr. LARMON. It represents the combined judgment, I assume, of the Department and the Bureau of the Budget.

Mr. FOGARTY. I do not think that is a fair assumption to place on this budget. The Department of Health, Education, and Welfare is given a budget ceiling. Then the Department tells the Public Health Service the amount of their ceiling. Then it is prorated in these activities. That is how it is done, is it not, or practically like that?

Mr. LARMON. In general, yes.

Mr. FOGARTY. There is nothing about the need of the program or the degree of Federal participation. They are given a figure and told "Here, you operate with this figure." Then they prorate it.

Mr. LARMON. Back of that there is some assumption with regard to the degree of Federal participation and contributions.

Mr. FOGARTY. What do you mean by that?

Mr. LARMON. With regard to this particular Department I mean for one thing the amount for this particular Department in the total budget for the country.

Mr. FOGARTY. What do you think the intent of Congress was when they enacted the legislation establishing the National Institutes of Health?

Mr. LARMON. I assume it was to contribute to the health needs of the Nation.

Mr. FOGARTY. And they knew it would cost money, too, didn't they?

Mr. LARMON. I assume so.

Mr. FOGARTY. What do you think the thinking of this committee was a year ago when we didn't pay attention to your estimates and appropriated additional funds?

Mr. LARMON. I assume your judgment varied from that recommendation made by the Department.

Mr. FOGARTY. What do you think of the Senate's observations? Do you think they were sound in making still further increases?

Mr. LARMON. That represented their judgment, sir.

Mr. FOGARTY. You do not think they were sound?

Mr. LARMON. Mr. Fogarty, I do not know what the Senate did actually.

Mr. FOGARTY. They raised our figures from $17,887,000 to $20,487,000. That is $2,600,000, which was around $5 million more than your Department recommended last year.

Mr. LARMON. Am I correct that the combined judgment of the two committees and the Congress was approximated in degree to the figures we are recommending this year?

Mr. FOGARTY. The Senate recommended $20,487,000. The figures I have here show $20,237,000 agreed on in conference, and now this year you show a reduction of $375,000.

According to the Wolverton committee cancer is costing this country $300 or $400 million a year. It is costing the Federal Government a good portion of that. If through Federal contributions we can find the answers to some of these diseases, would that be economically good for the Federal Government or would it not?

Mr. LARMON. I think it would be, and I think likewise that private organizations can contribute to research which would contribute as well.

Mr. FOGARTY. I think they are doing a wonderful job. That is why this program has gone over with the Congress, because of the cooperation between the private agencies and the Federal Government. I do not think any better relationship exists between any groups in this country than exists between the Institute and the American Cancer Society and American Medical Association. That is why it has gone over. That is why the Congress wants it to continue.

When we get something like this discovery in cervical cancer in women, we ought to pursue that more than we are doing at the present time, and in doing so I think we can save lives.

I do not think you can save a dollar, and that is what you are trying to do, by reducing this appropriation. You cannot do it in my opinion. That is my opinion against yours now. I am not blaming you. You are part of the team. I do not think your team is on the right path. I do not think you are doing the right thing.

Mr. LARMON. Mr. Fogarty, we assume that we are.

Mr. FOGARTY. I know that. And you did a year ago. You assumed the same thing a year ago. You came in here and justified the Eisenhower budget. I said the same thing a year ago that I am saying now, only I think I expressed myself a little stronger with the Secretary a year ago, when she appeared to justify these cuts in the Eisenhower budget, than I am today. I said I didn't see how anybody could come before a committee of Congress and recommend the cuts they recommended a year ago, and I said I hoped the committee wouldn't accept them. The committee didn't accept them.

The Senate went above my expectations, and I hope they do the same thing this year because I think the need is still there, and as long as a need is there I think the Federal Government should take the lead in this particular field. Everyone I have talked to at home has been in thorough accord with Federal participation in this field.

Every doctor I have ever talked to in Rhode Island is in favor of it.

Mr. LARMON. We have no question with regard to participation.

Mr. FOGARTY. They have no quarrel at all with these programs. I think that speaks very well for the Institutes and the way these programs have been handled and the results which have been achieved by the expenditure of Federal funds. If it is going well and there is still a need we ought to continue on with it and not cut it back. I don't want to see it cut back.

Mr. BUSBEY. Further questions?

Mr. FOGARTY. That is all.

Mr. BUSBEY. The committee will stand adjourned.

MONDAY, APRIL 26, 1954.

MENTAL HEALTH ACTIVITIES

WITNESSES

DR. ROBERT H. FELIX, DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH

DR. C. J. VAN SLYKE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$10,895,000	$12,095,000	$12,460,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		1,575	
Transferred to "Service and supply fund, Public Health Service," pursuant to Public Law 170		−57,000	
Adjusted appropriation or estimate	10,895,000	12,039,575	12,460,000
Reimbursements from non-Federal sources	18,776	20,000	18,600
Total available for obligation	10,913,776	12,059,575	12,478,600
Unobligated balance, estimated savings	−359,487		
Obligations incurred	10,554,289	12,059,575	12,478,600
Comparative transfer to—			
"Neurology and blindness activities, Public Health Service"	−59,243		
"Salaries and expenses, Office of the General Counsel, Office of the Secretary of Health, Education, and Welfare"	−2,000		
Total obligations	10,493,046	12,059,575	12,478,600

NOTE.—Reimbursements from non-Federal sources above are for personnel detailed to the Juvenile Court, District of Columbia, in accordance with provision of the District of Columbia Appropriation Act.

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants:			
(a) Grants for research and training:			
(1) Research projects	[1] $1,648,651	$2,587,000	$2,587,000
(2) Research fellowships	249,292	187,000	187,000
(3) Training grants	3,629,506	4,176,000	3,676,000
(b) Grants for detection, diagnosis, and other preventive and control services	3,060,078	2,325,000	2,325,000
2. Direct operations:			
(a) Research	1,095,608	1,893,575	2,820,000
(b) Other direct operations:			
(1) Review and approval of research and training grants	127,085	138,000	123,000
(2) Training activities	63,862	60,000	50,000
(3) Technical assistance to States	405,826	417,000	415,600
(4) Administration	277,160	276,000	295,000
Total funds for program performance	10,557,068	12,059,575	12,478,600
Adjustment for obligations incurred in advance of program performance	[1] −64,022		
Total obligations	10,493,046	12,059,575	12,478,600

[1] Some of the obligations for grants for research projects were incurred several years in advance of actual program performance. By means of the adjustment line shown in this schedule, the amount for 1953 reflects the actual performance level for that year.

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	252	303	301
Full-time equivalent of all other positions	9	9	9
Average number of all employees	219	267	293
Average salaries and grades:			
General schedule grades:			
Average salary	$4,608	$4,866	$4,845
Average grade	GS-6.7	GS-7.1	GS-7.0
01 Personal services:			
Permanent positions	$1,167,747	$1,469,842	$1,605,842
Other positions	47,225	54,500	52,500
Regular pay in excess of 52-week base	3,587	4,300	4,300
Payment above basic rates	2,592	7,300	6,800
Total personal services	1,221,151	1,535,942	1,669,442
02 Travel	76,870	94,500	94,500
03 Transportation of things	9,759	13,900	15,900
04 Communication services	9,889	21,575	22,500
05 Rents and utility services	604	1,000	1,000
06 Printing and reproduction	19,812	25,300	25,100
07 Other contractual services	48,181	72,500	81,700
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	510,787	895,700	1,655,400
08 Supplies and materials	45,342	78,000	90,000
09 Equipment	28,352	45,900	51,200
11 Grants, subsidies, and contributions	8,524,005	9,275,000	8,775,000
15 Taxes and assessments	3,220	5,200	5,200
Subtotal	10,497,972	12,064,517	12,486,942
Deduct charges for quarters and subsistence	4,926	4,942	8,342
Total obligations	10,493,046	12,059,575	12,478,600

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$827,081	$556,769	$966,344
Obligations incurred during the year	10,554,289	12,059,575	12,478,600
	11,381,370	12,616,344	13,444,944
Deduct:			
Adjustment in obligations of prior years	81,472		
Reimbursements	18,776	20,000	18,600
Obligated balance carried to certified claims account	2,281		
Unliquidated obligations, end of year	556,769	966,344	1,126,344
Total expenditures	10,722,072	11,630,000	12,300,000
Expenditures are distributed as follows:			
Out of current authorizations	10,013,931	11,180,000	11,450,000
Out of prior authorizations	708,141	450,000	850,000

Mr. BUSBEY. The committee will come to order. We have for consideration this morning the budget request for the mental health activities of the National Institutes of Health.

Mr. Albert Thomas of Texas is sitting in this morning for Mr. Fogarty, the ranking minority member of the committee, since Mr. Fogarty was not able to be here. We are glad to have Mr. Thomas present, because he has served well and faithfully and very valuably on the Appropriations Committee for many years and I believe was at one time on this subcommittee.

Mr. THOMAS. Yes.

Mr. BUSBEY. Dr. Felix, we are glad to welcome you to the committee room.

Dr. FELIX. Thank you, sir.

Mr. BUSBEY. We will insert your general statement in the record at this point.

GENERAL STATEMENT

HISTORICAL BACKGROUND

Mr. Chairman and members of the committee, the National Institute of Mental Health was authorized, under the terms of the National Mental Health Act, Public Law 487, July 3, 1946, to provide for research relating to psychiatric disorders and to aid in the development of more effective methods of prevention, diagnosis, and treatment of such disorders. The first appropriation was made in fiscal year 1948 when a sum of $2,048,600 was made available to carry on these activities. These funds were administered by the Public Health Service's Division of Mental Hygiene, which had been established in 1930 to carry on expanded activities under the Narcotics Control Act. This Division was abolished when the National Institute of Mental Health was formally established in April 1949.

As the activities of the National Institute of Mental Health have begun to bear fruit in terms of promising research leads, expanded training of professional psychiatric personnel, and substantive technical assistance to the States in the development of control programs, annual appropriations for these activities have gradually been increased. In fiscal year 1953, $10,895,000 was appropriated to support the work of the Institute, including research and other direct operations as well as research and training grants.

To carry on and expand the research already begun, and to support increased basic research and a newly instituted program of clinical investigation at the Public Health Service's new clinical center, a total of $12,095,000 was appropriated for fiscal year 1954.

NATURE AND EXTENT OF THE PROBLEM OF MENTAL ILLNESS

Mental illness is not a killer. The mentally ill live on and on, in our prolonged-care mental hospitals, at public expense. Some 900,000 persons are treated in these hospitals each year. The cost of maintaining these hospitals, plus the pensions paid to veterans with neuropsychiatric discharges, is a direct burden on the taxpayer of $1.1 billion annually. This cost continues to rise at the rate of almost $100 million each year, and if one adds to it the loss in wages and taxable income, the dollar cost of the more serious mental illnesses mounts into the billions each year. In addition, between 1 and 2 percent of our total national population suffer from some form of mental deficiency which prevents them from taking their place as normal productive members of the community. Substantial numbers of these people require institutional care at public expense; those who do not need such care still must be given special training so that they can function at the highest level of their ability.

The losses from serious emotional disorders which do not require hospitalization are also staggering. More than 40 percent of all the disability discharges from the Armed Forces during World War II were for neuropsychiatric disorders. The loss in productive manpower, wasted lives, and human misery and suffering is further increased by those millions of individuals whose psychoneurotic disturbances prevent them from functioning at their normal level of ability. And the national burden of crime and disturbed family relationships which can be traced to emotional problems raises the cost of the mental and emotional illnesses to an incalculable total.

AREAS OF RESEARCH ON MENTAL ILLNESS

Scientists and physicians of long experience in this field are generally agreed that the causes of the various mental illnesses will be found in a complex interaction of biological, psychological and social factors. Which will be the more important in causation may well vary from one mental illness to another. This precludes any possibility of focusing research effort in 1 or 2 areas of study. The problem areas with which we must be concerned may be loosely classified in one or the other of two categories—basic studies and clinical studies—although frequently the two overlap in any one project.

In basic research we are concerned with studying normal child development, psychological functions, anatomy, physiology, and biochemistry of the nervous system and other basic problems. In clinical research, we are concerned with studies of etiology and symptomatology, development or evaluation of treatment techniques, studies of prognosis, epidemiological studies, and the like.

The opportunities for research in these fields have increased tremendously in the last several years, primarily because of a rapid expansion of scientific knowledge that is now proving relevant to forms of mental illness. In addition, the tremendous technological progress made during the war provides new tools and new techniques for use in research. Finally, increased interest in and support for research in this field was stimulated by the passage of the National Mental Health Act in 1946. No matter how great an interest a scientist may have in research on a specific problem, he cannot take up that field of investigation unless funds, facilities, and scientific leads are available. Today, we have unprecedented opportunities through the united efforts of Government, private foundations, and voluntary agencies to do productive research on the mental illnesses.

BASIC RESEARCH IN NORMAL CHILD DEVELOPMENT

One of the characteristics of some of the mental illnesses, including schizophrenia, is the inability of the patient to make decisions on everyday problems of life. Therefore one of the areas of information we need to explore is how human beings learn to handle increasingly complex problems from earliest childhood until they become adults. A study underway on this subject with a grant from this institute is exploring the relation between the child s efforts to cope with problems and his temperament and resources for emotional growth. In addition the study is exploring the resources of the child and the adult for handling their limitations and their problems. This knowledge, will be valuable, for example, in guiding children to learn effective and acceptable ways of meeting the problems encountered in daily living. Many juveniles adopt delinquent behavior as a method of striking out to relieve anxieties and tensions arising from problems they cannot solve.

RESEARCH ON THE BRAIN AND NERVOUS SYSTEM

One of the most encouraging recent developments in research on mental illness is the adaptation of biochemical and metabolic research techniques to investigations of mental illness.

Studies in physical chemistry in progress in the laboratories of the institute have as their goal determination of the relationship between fundamental chemical structure of the brain and its normal and abnormal activity. Within the nucleic acids of the brain cells now being studied reside specific genetic factors which may contribute to diseases of the nervous system.

Another research team—one on cerebral metabolism—has in the past year developed a technique which, for the first time, makes possible measurement of circulation to individual parts of the brain. On the assumption that the amount of blood supplied to any part of the brain is indicative of the relative activity of that part, this technique makes it possible to determine the blood supply of each segment of the brain. This is of basic importance in finding out what each segment contributes to the function of the whole brain. In the senile psychoses, insufficient circulation to the brain has been shown to be one of the important causes. This new technique will permit more intensive study of the aging of cerebral circulation and the effect of drugs and procedures designed to improve it.

The general purpose of our studies on aging is to identify the primary factors leading to decline in the function and structure of the nervous system with advancing age. The significance of this research in connection with mental disorders lies in the fact that persons 65 years of age and older represent 25 percent of first admissions to State mental hospitals in 1950. Research on the nervous system is one of the most profitable points of departure for studies of aging because of the role of the nervous system in integrating bodily functions and the fact that the nerve cells show little evidence of regeneration. Hence it is a system which accumulates changes. Studies of this nature anticipate eventual studies designed to alter the rate of aging in the nervous system when the primary factors leading to decline in the function and structure of the nervous system have been identified.

Studies of cortical integration are headed by a scientist who has made a significant contribution to our knowledge of the integrated activity of the cerebral cortex. By an extremely ingenious technique he has made it possible for the first time to observe the precise physiological activity on the surface of the brain associated with a voluntary act. This will make possible an understanding of the complex physiological basis for normal and abnormal behavior.

A research advance of potentially profound significance is the finding that the amounts and types of chemicals called steroids differ in different mental disease states, as compared with normal people. An important contribution of the work in our laboratories during the past year has been the development and use of refined new methods of analyzing these substances.

CLINICAL STUDIES ON THE CAUSE OF SCHIZOPHRENIA

Schizophrenia is a mental illness of immediate concern because 47 percent of the patients resident in public mental hospitals are suffering from schizophrenia and their median length of stay is over 10 years.

One of the grants from the Institute is supporting research to explore the effects of a chemical called lysergic acid which has recently been found to produce in normal persons temporary reactions resembling some of the symptoms found in schizophrenic patients. If the scientists are able to determine the biochemical effects of lysergic acid which produce these reactions, they can then search for drugs to counteract them. Ultimately, investigators may be able to apply them in the treatment of schizophrenia. This project may also provide basic information on the relationship between brain metabolism and mental disorders.

At the Clinical Center, the Institute staff is taking another approach to the study of lysergic acid. A group of schizophrenic patients has been admitted who display an unusually intense degree of feelings of unreality. These patients were specifically selected because their symptoms resemble those which are produced in nonpsychotic individuals by the use of lysergic acid. Studies of the blood and urine of the schizophrenic patients are being made in order to follow the metabolism of lysergic acid. This drug is also being administered to monkeys to determine by psychological and physiological methods (1) if their reactions to the drug are comparable to those in normal human beings, and (2) to determine if possible the area of the brain which is affected by the drug. It is possible that a competing substance may be found which will ameliorate the effects of the drug.

This substance can then be tested to determine whether it has any beneficial effects in the treatment of schizophrenia.

Another group of patients with schizophrenia under study at the Clinical Center are young people in their late teens who are suffering an acute onset of the disease after having made apparently good school or job adjustments.

With the assistance of a grant from this Institute, a systematic exploration of conditions which appear to be basic to understanding the psychological factors characteristic of schizophrenia is underway. It is anticipated that some valuable clues to this complex disease will be forthcoming in the course of this research.

CLINICAL STUDIES ON THE CAUSE AND TREATMENT OF ABNORMAL BEHAVIOR

At the Clinical Center, the National Institute of Mental Health staff has inaugurated a study of the emotionally disturbed child on the well-founded assumption that a large proportion of the mental illnesses of adults has its roots in childhood. Currently a group of boys whose ages range from 9 to 13 years are being studied. All of the boys have displayed serious difficulties of an anti-social nature. The research is designed to gain further understanding of their difficulties with a view to developing more effective methods of treatment.

CLINICAL STUDIES OF EVALUATION OF TREATMENT

A basic tool of the psychiatrist is the group of treatment techniques included in the term "psychotherapy." Where psychiatric services are available to the mentally ill patient, psychotherapy frequently arrests the progress of the illness and helps the patient to recover. However, a better understanding of specific elements in the process which are effective is necessary. Once these elements are more clearly identified it may be possible to prescribe treatment for a specific type of patient and predict the outcome more accurately. Grants have been made for studies of this character which will provide some of the vitally important information and offer new leads for further study and improvement of psychotherapy.

Another method of treatment which is well known is shock therapy. Electro-shock therapy is effective in treating certain types of mental illness, but the reasons for its effectiveness are not known. Twenty-five years ago two-thirds of the patients who were admitted to mental hospitals suffering from involutional melancholia (a mental illness usually occurring in the middle years of life) were still there at the end of a year. Today, two-thirds of these patients are discharged within 12 months of their admission. A study is being supported with a grant from this Institute which may enable us to find out why shock therapy is effective with certain types of patients and why it is not effective with other types. One highly significant approach to this problem is the use of a new method of shock therapy which will enable investigators to find out for the first time what happens in the brain during shock treatment.

CLINICAL STUDY OF PROGNOSIS

In a grant-supported study, the investigators are trying to provide tests for identifying schizophrenic patients who are likely to respond to available treatments, and to identify those for whom no present-day treatment appears to be effective. With such a prognostic device, therapies may be developed that will accelerate improvement in those patients with a good prognosis, and therapies devised which may be effective with the patients who now have a poor prognosis.

CLINICAL STUDIES OF ETIOLOGY OF PSYCHOSOMATIC DISORDERS

One of the strengths of the clinical center as a research facility is the opportunity to bring every medical and scientific specialty to bear on the health problems being investigated. The staff of the National Institute of Mental Health is seeing selected patients with severe arthritis, and is cooperating with the staff of the National Heart Institute in the study of several cardiac patients. Emotional factors present in any illness are believed to be of particular and perhaps basic importance in diseases such as certain types of arthritis and heart disease.

CLINICAL STUDIES ON CAUSES OF MENTAL DEFICIENCY

It is estimated that between 1 and 2 percent of the population are handicapped by various types of mental deficiency. Certainly, at the end of 1950, there were more than 128,000 children and adults on the books of public and private institu-

tions for the mentally defective. The Institute is providing support for some very fundamental research in this field. One project is attempting to determine in a particular type of mental deficiency if the condition exists as a result of the presence of a substance which interferes with the normal metabolism of the nervous tissue, or alternatively, if some substance is missing which is necessary for normal mental functioning. In another study, the nutritional requirements and metabolic patterns of Mongolian idiots are being investigated. It is thought by some scientists that mentally defective persons in this category exhibit symptoms similar to those observed in several nutritional deficiency diseases. These studies may not only give us more knowledge about mental deficiencies but, at the same time, may provide us with important data on the biochemical requirements for normal brain functioning.

EPIDEMIOLOGICAL STUDY OF THE MENTALLY ILL

A study undertaken by Institute staff and now nearing completion will show in great detail, for a substantial population group, the respects in which mentally ill people and their life experiences differ from people who have not become mentally ill. Hagerstown, Md., a community which has been the object of extensive health studies over a period of 30 years was selected for a study of the distribution of schizophrenia and other functional psychoses. The State of Maryland made a grant of $5,000 to this Institute to help expand the study, because of the benefits which will accrue to the State from such a study of certain of its citizens. The value of the data collected will not, of course, be limited to the State. Knowledge acquired in Hagerstown will add an important piece to the picture of mental illness which is gradually being developed.

CLINICAL STUDIES OF DRUGS AND ADDICTION

The earliest research responsibility of the National Institute of Mental Health was the study of drugs and drug addiction which had been delegated to the Public Health Service in 1929. Following the establishment of the Institute, the Addiction Research Center located at the Public Health Service hospital in Lexington, Ky., became a responsibility of the Institute. During the past year, the center continued its vital work in clinical testing to find a safe synthetic substitute for morphine and codeine. Officials of the American Medical Association talked with the Surgeon General about their concern over the addiction liability of meperidine, a drug which is widely used in medical practice. It was decided to undertake a study of this drug at once, and in cooperation with the clinical staff of the hospital at Lexington the work is now going forward.

MENTAL HEALTH CAREER INVESTIGATOR GRANT

A new type of research grant was made possible with the increased funds appropriated for the current fiscal year, and bids fair to make an important contribution to the development of highly productive research. This grant, which is known as the mental health career investigator grant, enables the Institute to support the research of a number of outstanding young scientists in psychiatry and related fields for a period of several years each. Basic considerations in reviewing the applications for these grants are the qualifications and demonstrated ability of the candidate proposed by the applicant, the nature of the program of research that the candidate plans to undertake, and the facilities of the university or other research center making the request to provide a stimulating environment for maximum growth of the candidate as a scientific investigator. Preliminary review of the applications for these grants is made by a selection committee of five outstanding nongovernmental scientists who will make recommendations to the National Advisory Mental Health Council. The Council, in turn, will review the applications and the recommendations of the selection committee and report to the Surgeon General.

Every field of science is looking for new blood and fresh talent but in no field of research is there greater need for young investigators of demonstrated ability than in psychiatry. In the past the training of the psychiatrist has been largely oriented toward the practice of clinical psychiatry at the expense of experience in research methods and techniques. The first mental health career investigator grants, therefore, are being awarded to support the research of young psychiatrists of outstanding ability.

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RESEARCH FELLOWSHIPS

In addition to research grants, the Institute also provides research fellowships to young scientists for training in research methods and techniques in the field of mental health. Since the first fellowships were awarded several years ago, the returns are beginning to come in. Several former research fellows of this Institute are receiving research grants, or are participating in research being supported by the Institute. It is particularly gratifying to be able to see the results of our efforts to increase the number of well-trained research workers.

INCREASING THE SUPPLY OF PSYCHIATRIC MANPOWER

The urgent need to apply the findings of research in the effective treatment of the mentally ill lays added emphasis on the great shortages of people trained in the mental health professions of psychiatry, clinical psychology, psychiatric nursing, and psychiatric social work. Teaching and training grants administered by the National Institute of Mental Health are helping to meet this need by developing teaching programs to reach more students and by providing traineeships to graduate students who wish to enter these professions. At the present time 136 universities and other training centers are receiving 1 or more training grants from the National Institute of Mental Health. Of the total of 27,000 students in undergraduate medicine during fiscal year 1953, more than half—15,000—benefited from improved training in basic psychiatric concepts made possible by National Institute of Mental Health teaching grants to 45 schools.

In the graduate training programs during this same period, the benefits of the National Institute of Mental Health training grants reached 500 of the 1,112 enrolled in psychiatry, 520 of the 1,000 in public health mental health, 800 of the 2,000 in psychiatric social work, 750 of the 2,600 in clinical psychology, and at least 2,500 of the 3,000 enrolled in psychiatric nursing.

IMPROVING TRAINING

The objective of the National Institute of Mental Health is not only to increase the training opportunities available, but to raise the quality of training provided and devise new and more effective training techniques. With constantly increasing professional knowledge and new concepts of service, it is essential that each of the mental health professions review the content of its training programs from time to time. Through training grants to the appropriate professional groups over the last several years we have enabled each of the professions to do so. The most recent of these conferences was held at Cornell University by the American Psychiatric Association and the Association of American Medical Colleges to consider the education, training, and the role of the psychiatrist. The results of the extraordinarily constructive work done at this conference were recently published in a volume entitled "The Psychiatrist, His Training and Development."

TRAINING ALLIED PERSONNEL

The mental health professions neither can nor should assume the entire responsibility for the mental health of the population. Many other professional people, public health physicians and nurses, general practitioners, pediatricians, teachers, ministers, and others who work in a guidance or counseling capacity with children or adults can render yeoman service in recognizing and dealing with the emotional components of the problems which come to their attention and in identifying symptoms of mental and emotional disorders which should receive specialized help. The National Institute of Mental Health has sponsored a number of institutes to provide training in basic psychiatric concepts for such personnel. The value of these institutes has been generally recognized and many of the States are now conducting them for various professional groups.

TRAINING PERSONNEL TO REHABILITATE THE MENTALLY ILL

Another area in which special training is needed is the rehabilitation of the mentally ill so that their readjustment as productive members of the community is made easier and the chances of a relapse thus minimized. In cooperation with the Office of Vocational Rehabilitation of the Department of Health, Education, and Welfare, this Institute has made grants for a series of training conferences for vocational rehabilitation counselors.

Colorado, which was one of the first States to inaugurate a specialized program for the rehabilitation of the mentally ill has demonstrated in dollars and cents

what the savings can be. By putting in the credit column the taxes paid by the patients on the wages they earned on the job, and the savings to the community because they are in the community working instead of being hospitalized, and balancing this off against the cost of the rehabilitation program, there was a net gain to public funds of over $400,000.

HELPING THE STATES TO DEVELOP MENTAL HEALTH PROGRAMS

Financial and technical assistance to the States in their steadily expanding mental health programs is provided through the grants program and by technical consultation from professional staff at the Institute and in the departmental regional offices. By these means the official State mental health agencies have received invaluable help in recruiting and developing mental health staff, and in planning and carrying out programs suited to the needs and resources of the various States and communities.

One of the principal activities of these programs has been to train many types of professional personnel—health and education personnel, welfare and rehabilitation workers, court personnel, church groups—to render mental health services. Through official and nonofficial agencies and other community groups, information and education on mental illness and methods of building sound mental health are being provided.

Another extensive activity that grant funds have made possible at the State and local level has been the development of mental-health services for people with mental and emotional problems. In addition to these diagnostic and treatment services, outpatient clinic staffs are also providing consultation to professional workers in other agencies who may be confronted with such problems in the people with whom they work.

Growing interest and support for mental-health services is concretely illustrated by the steady increase in State and local funds available to match the Federal grants. The Council of State Governments has assumed an increasingly active role in identifying the mental-health needs in the respective States and is utilizing the professional services of our staff in planning ways and means of meeting these needs.

CONSULTATION ON SPECIAL PROBLEM AREAS

Some of the special problem areas in the field of local mental-health programing present challenges which require the assistance of a Federal agency such as the National Institute of Mental Health. This is true, for example, of the mental-health problems implicit in civil-defense programs. In consultation with the Federal Civil Defense Administration, the professional staff of the Institute prepared a booklet which has been published by the Public Health Service under the title "Mental Health Implications in Civilian Emergencies." This booklet is being widely distributed throughout the country.

Consultant services provided by the National Institute of Mental Health to State mental-hospital systems are helping to strengthen and improve the standards of patient care. Work with State agencies and other groups on mental-health problems as found in alcoholism, drug addiction, juvenile delinquency, aging, and mental deficiency has served to coordinate and develop programs to meet these needs.

Special Studies to Improve Local Mental Health Services

In order to improve the care of the mentally ill in the State hospitals, as well as to improve the diagnostic and treatment services offered by local mental-health clinics, it is imperative that the results of careful statistical and field studies, which no local agency is equipped to conduct, be made available.

To fill this need, studies at the Public Health Service field station in Prince Georges County, Md., are being conducted in an effort to develop new and improved methods for use in community mental-health programs throughout the country. One such study recently concluded has given us valuable information about the symptoms of emotional maladjustment in school children. With this information, we can now more easily identify those children who are likely to develop emotional disorders, so that they may be given appropriate treatment before they develop these disorders. Other such studies under way hold promise for further techniques and tools which will be useful in preventive work with children, the area in which each accomplishment is a major victory, each child saved from emotional illness means a lifetime of full and socially useful living.

To improve the services rendered by the State mental hospitals, it is essential that they have complete and reliable data on what happens to patients who are hospitalized with mental illness. Only in that way can the effectiveness of treatment be charted and broad plans be made for the patient both during and after his period of hospitalization. To date there are no such uniform statistical data for the country, as a whole, but the efforts of the National Institute of Mental Health to fill this gap are bearing fruit.

Three years ago, Institute staff members met with State hospital administrators and statisticians and worked out plans for setting up a model reporting area composed of 11 States that were interested and able to help develop more adequate data on the hospitalized mentally ill. In subsequent conferences with the State representatives, methods have been worked out which can be used in developing these data. Four more States have since joined the model reporting area group. These 15 States provide care for 64 percent of all patients in State mental hospitals in the United States. The most striking development reported at the conference held in the spring of 1953 was that nearly three-fourths of these 15 States have inaugurated systematic statistical studies of what happens to the patient from the time of his admission to the mental hospital. This represents a very significant attempt by the States to determine disposition of such patients by age, sex, and diagnosis within specific intervals after admission, and thus to evaluate the operation of the State hospital systems.

The foregoing summary of the research into mental illness supported and conducted by the National Institute of Mental Health, the assistance provided in the training of professional psychiatric manpower, and the consultation and studies related to the development of mental-health programs indicates the range, goals, and scope of activities of the Institute. The aim has always been to move in on this grave public health problem from every possible angle, to isolate core areas of difficulty, and through the acquisition and application of new knowledge to gradually reduce the problem.

The job yet to be done before mental illness can be brought to an irreducible minimum is enormous, but progress is surely being made. Even with our limited knowledge, we can help many mentally ill patients to recover today, and there is no reason why increasing knowledge and personnel will not make it possible to help many more recover tomorrow. But we must not relax our efforts—the combined efforts of Government, foundations, and voluntary groups to achieve the goal as quickly as possible.

Mr. BUSBEY. Your request this year is for $12,460,000, which is an increase of $365,000 over the amount appropriated for 1954. Is that correct?

Dr. FELIX. That is correct, sir.

Mr. BUSBEY. And this increase is attributable to the increased activity at the clinical center at Bethesda?

Dr. FELIX. That is correct, sir.

Mr. BUSBEY. On page 5 of your statement, Doctor, you refer to a research team that has developed a technique to measure circulation in different parts of the brain. Is that a team of the NIH staff, or is that an outside group?

Dr. FELIX. That is a team of the NIH staff, the National Institute of Mental Health, working in the clinical center at the National Institutes of Health at Bethesda.

RELATIONSHIP WITH WORK OF NEUROLOGY INSTITUTE

Mr. BUSBEY. Explain to the committee, if you will, the relationship of your research to the research that is done on the brain and nervous system in the Institute for Neurology and Blindness.

Dr. FELIX. Well, sir, we know that any mental functioning must be the result of activity of the brain. In other words, thought and mental functioning is a function of an organ, the brain, which is the seat of this activity. This organ depends upon various types of metabolic activity and certain physiological processes in order for it

to function correctly, and deviations from those mean abnormal functioning and abnormal thinking.

So we are concerned with the functions of the brain and nervous system insofar as thinking is concerned from the standpoint of what it means in terms of deviations from normal thinking. At the basic level; that is, in the fields of physiology, chemistry, anatomy, and so forth, we have a laboratory jointly with the National Institute of Neurological Diseases and Blindness. We jointly support it, because the data coming out of these laboratories are important to both of us for different reasons; they, with respect to neurological diseases, and our Institute because of the mental aspects of it. But it is a joint laboratory.

EFFECT OF EMOTIONAL FACTORS ON BODY DISORDERS

Mr. BUSBEY. On page 10 in the last sentence of the paragraph under the heading "Clinical Studies of Etiology of Psychosomatic Disorders" you say "Emotional factors present in any illness are believed to be of particular and perhaps basic importance in diseases such as certain types of arthritis and heart disease." Would you expand on that statement just a little, Doctor?

Dr. FELIX. I will be glad to, Mr. Chairman. There are a number of diseases, arthritis being one, heart disease another one, ulcers of the stomach another, asthma another, and several others, which have been found to have a relationship to the general emotional attitudes of the individual.

We know, for instance, in heart disease—I am speaking now from the psychiatric point of view, not from the standpoint of cardiology—that continued emotional stress as well as continued physical stress causes changes in certain glands of the body which will reflect themselves in an elevation of the blood pressure and disorders of the vessels supplying the heart itself with blood, the coronary vessels, and will eventually result in permanent damage and disease. You probably are aware and probably have yourself sometimes used the expression "If tensions do not let up pretty soon, so-and-so is going to have a stroke." And it is literally true. If the tensions, if the emotional pressures on one are more than can be handled successfully, they are reflected in mental and physiological changes of the body, in some people mental or psychological changes, in others, ulcers of the stomach, in others arthritic changes, changes in the joints themselves, and so on. These diseases are called by the name of psychosomatic disorders, the causes of which have both emotional and physical aspects.

CAREER INVESTIGATOR GRANT PROGRAM

Mr. BUSBEY. On page 12 you mention a new type of grant, "Mental health career investigator grant." How much does each grantee receive a year?

Dr. FELIX. It varies, depending upon his project and upon the number of years of support he needs, and so forth. The total amount granted for this purpose for the current year is $198,450. This is for three investigators and their supporting staffs. It can vary up and down depending upon the nature of the project and for how many years support is needed.

Mr. BUSBEY. For how many years will a particular one of these investigators continue to receive grants?

Dr. FELIX. In no case more than 5 years. It may be less; it could be for 1, or 2, but in no case for more than 5 years.

Mr. BUSBEY. How much did you say was being spent for this in the 1954 fiscal year?

Dr. FELIX. $198,450.

Mr. BUSBEY. And you are requesting how much for 1955?

Dr. FELIX. This is part of our general research project request. There would be not more—and I cannot predict whether it would be this much, because we do not know yet what applications there are—but not more than $250,000 out of the requested amount of $2,587,000.

Mr. BUSBEY. In the hospital construction program, under the Hill-Burton law, we have encountered what they call split projects, where they allocate Federal funds to start a project, thus building up pressure for the future years' appropriations until the project is finished. Is this in any way going to be construed as being binding on Congress to keep appropriating at a certain level indefinitely for completion of a series of grants that you are now starting?

Dr. FELIX. No, sir. In order to obviate that, we set aside funds at the time the award is made which will cover the entire amount of the project. If by any chance the investigator should die or the project should be broken off, any paid and unexpended portion, of course, returns to the Treasury. In this way, once the grant is made, our obligation ceases so far as that individual is concerned.

Mr. BUSBEY. Are funds budgeted under any other Institute for grants of this kind?

Dr. VAN SLYKE. No, sir, they are not, Mr. Chairman. There is under discussion at the present time this problem in relationship to other shortage areas as in the case of psychiatric research, but no definite steps have been taken.

REASON FOR SPECIAL PROGRAM

Dr. Felix. You might be interested as to why we wish to develop this type of activity. We found over several years that the most glaring lack insofar as the researcher is concerned in the mental health field is that of clinical people, that is, trained psychiatrists who are also able to do good and sound clinical research. They are almost nonexistent. Many of the problems which have to be answered in the immediate future are of a clinical type.

In the treatment of dementia praecox, for instance; the whole problem of the treatment of emotionally disturbed thinking, which is a precursor to juvenile delinquency. The problem of treatment of those conditions is the important goal from the clinical point of view. We were not getting applications in those areas, because no one was trained to do this. They were trained as teachers, perhaps, to do public service like working in clinics; but to do good, sound research we could not find them.

So this particular project was started as a part of our research grants program in order to stimulate some bright and inquisitive young men and women to make a career of clinical research.

COLORADO REHABILITATION PROJECT

Mr. BUSBEY. On page 15 under the heading "Training Personnel to Rehabilitate the Mentally Ill" you state:

> Another area in which special training is needed is the rehabilitation of the mentally ill so that their readjustment as productive members of the community is made easier and the chances of a relapse thus minimized. In cooperation with the Office of Vocational Rehabilitation of the Department of Health, Education, and Welfare, this Institute has made grants for a series of training conferences for vocational rehabilitation counselors.
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> Colorado, which was one of the first States to inaugurate a specialized program for the rehabilitation of the mentally ill has demonstrated in dollars and cents what the savings can be. By putting in the credit column the taxes paid by the patients on the waves they earned on the job, and the savings to the community because they are in the community working instead of being hospitalized, and balancing this off against the cost of the rehabilitation program, there was a net gain to public funds of over $400,000.

Would you elaborate on that a little bit for the benefit of the committee?

Dr. FELIX. They have a program in Colorado, as stated in my statement here, designed to rehabilitate those mentally ill who have been hospitalized, as well as others. On figuring this, they calculated the cost of carrying the patient in the hospital at the rate per annum or per diem in Colorado. They also took the actual amount of money that these individuals earned after they came out of the hospital and took their earning capacity as a result of the rehabilitation program and also the actual amount of tax money they paid on those earnings; they subtracted the cost of hospitalization, the cost for the time they would have been hospitalized had they not been brought back out and put to work, from the total amount of earnings and taxes paid, and found that the public had been saved on those 216 patients, which were the ones studied, $400,000.

CALCULATION OF MONETARY BENEFITS

If the chairman and the committee would wish, I would be very glad to submit for the record the actual dollars calculated and how they calculated it.

Mr. BUSBEY. I think it would be well that that be submitted for the record; not that we challenge the figures, but so very often we have had people come before this committee and make general statements of this kind when they could not produce the facts to substantiate the statements, especially on rehabilitation.

You mentioned 216 patients. That would be out of a total number of how many patients for the entire State? I assume the 216 were in the State of Colorado.

Dr. FELIX. These 216 were in the State of Colorado and were the ones who were given this rehabilitation program which had been designed in the State. This extended over a period of 4½ years. Some of those patients, at the time this calculation was made, had been out for only a few months, so that today I am sure the figure would be greater than that. Others had been out for from 3½ to 4 years at this time. But this calculation was made on those 216 patients discharged from the hospital as recovered and put back into society, into productive activity, as a result of this training program.

Mr. BUSBEY. Might they include such cases as, for instance, a friend of mine in Chicago? He is the head of a fairly good-sized business. He went into a hospital for a mental condition for a period of about 6 or 7 weeks and took a series of shock treatments some 5 or 6 years ago, and he has been back working, ever since that time, at his regular job as the head of his business.

Would these statistics take into account a patient like that?

Dr. FELIX. Probably not; because that man has his own business. I would gather from what you say the type of illness he had was one which, with a short intensive treatment, he could go back to work and do just what he had been doing. That person ordinarily would not be counted in this kind of rehabilitation figures.

But suppose your friend had been a bank teller, or some employee in a bank. It was not his business, but he was an employee in some capacity in this bank. Suppose he developed dementia praecox, a very serious kind of mental illness, which increased over the months, and suppose instead of weeks he had been in the hospital for 16 months: Now the probabilities of his returning to his bank position would be rather small.

There would be a number of reasons for that. The banking concern might not be too certain he could carry out his duties accurately, and so forth, but such a person might be found to work very well, because of his basic skills which made him a good teller, or what not, to do some other kind of work not in a position of this kind. He would be given rehabilitation training along this line, under the supervision not only of the rehabilitation counselor, but psychiatrists who know his basic condition. Then he would be placed in work which would be consistent with his training and which would net him an income.

I am not so much concerned, Mr. Chairman and gentlemen, with the acute short-term conditions for which you can give intensive treatment, but the drain on our purse, as you know, and as I have told you heretofore, are those long treatment cases that cannot get out and that cost us thousands and thousands of dollars because there is no place for them to go; nobody will hire them; they have no skills.

Mr. BUSBEY. I am in entire accord and sympathy with the program, but certain of these statistics raise a question in my mind, especially since I found out in my inspection of the rehabilitation program last summer in various States that very often they would buy a person a pair of glasses, or a hearing aid, or a pair of dentures, and do nothing else, but in the statistics that fellow was counted as one person rehabilitated just the same as though they had spent 4 years work in rehabilitating that individual. That is one of the reasons I raise the qustion as to how the statistics are arrived at.

Another question that comes to my mind is whether or not a certain percentage of the 216 people would not have been cured with the usual care and treatment without any special rehabilitation given through this program.

Dr. FELIX. I cannot say whether they would have gotten out eventually. I suspect on the law of averages that a portion of them would; but they got out earlier under this program.

Now if a patient costs $150 a month to the public and you save 10 months, you have saved $1,500 of public money. He might have

gotten out at the end of that time, but you have gotten him out earlier in this way.

I cannot say without going back to the basic data. I might say that when I saw these data and considered including them in my statement, I was critical and asked for the facts before I put this in. I thought I had the data in my bag, but I do not. I will supply them. Also, there has been a publication on this.

Mr. BUSBEY. I hope the table will show just exactly how their $400,000 figure was arrived at, because without a full explanation the statistics do not mean much to the committee or anyone else.

(The information referred to follows:)

Total amount earned by clients (weekly earnings multiplied by length of time worked at time of survey)	$256, 304
Estimated cost that would have been incurred for hospitalization during time out of hospital and employed (using per diem cost in Colorado State Hospital report)	449, 222
Total gross gain in value produced and savings	705, 526
Estimated 15-percent tax on earnings yields tax return to public	38, 445
Estimated savings in hospitalization	449, 222
Total gross gain to public funds	487, 667
Cost of the program ($46,358 for salaries of counselor and office assistant, and rent; $6,478 for direct services to clients (tuition, training, physical restoration, etc.)	−52, 836
Total net gain to public funds	434, 831

This calculation assumes that all of the hospital savings must be attributed to the program. Some of these patients would have been out of the hospital without the program; on the other hand, a part of these might not have been employed, or employed in as good jobs, without the program. None of these intangible factors can be exactly calculated. However, it is only necessary to attribute less than one-eighth of the hospital savings to the program to have it pay for itself in public funds alone.

RELATIONSHIP OF ENVIRONMENT TO MENTAL HEALTH

Mr. BUSBEY. On page 13–4, of your justifications you mention a project, "The relationship of environmental stress to mental health and illness." Does this work get into the field of the effect of a man's occupation on his mental health?

Dr. FELIX. It could. None of our studies at the moment do in fact, but it certainly could. At the present time, the studies are of two kinds. One is a study being carried on at Hagerstown, Md., in which they have the health records and occupation records, as you are aware, I believe, for somewhat over 20 years, and there has been a continual study of children occurring out there. They now also have available the records from the mental hygiene commissioner of the State of those hospitalized individuals out of that community, and information about their mental hospitalization. We are now matching up these records with the total health records, occupation records and family records of the individuals and comparing that with a matched group of cases that did not go to the hospital and who had exhibited, as far as we can learn, good mental health.

The other has to do with a study being carried on in St. Elizabeths Hospital here, concerned with the attitude of the family toward the hospitalized patient and the effect this attitude has on his getting well soon or delaying his recovery.

Mr. BUSBEY. Now does the direct research in this field, mentioned on page 13–10 of the justifications, get into the question of how a man's occupation affects his mental health?

Dr. FELIX. I do not believe we have any research going on in that area at the moment that has to do with an occupation's effect on mental health. It is certainly an area which is pertinent to this study, but none of our people are working on that particular thing at this time.

Mr. BUSBEY. Explain a little further for the benefit of the committee the sentence on page 13–10,

> Another area being emphasized is the relationship between environment and human behavior.

To what does that refer?

Dr. FELIX. This is again spelling out under the detail of our project on intramural research the same thing I was just telling you. This has to do with studies of environment and its effect upon mental health and mental illness. This is the same thing as we are discussing here under grants. One is intramural; the other is the grant program.

TRAINEE PROGRAM

Mr. BUSBEY. Going back to page 5 of the justifications, how many trainees have received funds since this program started?

Dr. FELIX. With your permission, I would like to supply that for the record.

Mr. BUSBEY. For the purpose of discussion, can you give us an approximation of the total number?

Dr. FELIX. This is rough; I may be off some, but there have been around 2,500 individuals who have received stipends. In addition to that, of course, many have received better training due to grants to institutions which made the total training program much better. But about 2,500 have received stipends—different individuals—since the beginning of the program.

PROPORTION OF TRAINEES THAT ENTER PUBLIC SERVICE

Mr. BUSBEY. Would you also supply for the record, how many of the total number are now engaged in mental health research and how many are in private practice.

Dr. FELIX. I can say about 80 percent of our stipendiaries are in some form of public service; that is, research, teaching, or working in community work. There is another about 8 percent in the military, and another percentage beyond that that are still in training.

Mr. BUSBEY. How do you arrive at those percentages?

Dr. FELIX. We have followed up almost all—some we have lost track of, but we have followed up almost all of those people who received stipends and have asked them what they are doing at the present time. That is the basis for our data.

(The requested information follows:)

> From the inception of the training program of the National Institute of Mental Health in 1947 to the present time, fiscal year 1954, a total of 2,740 persons have received support for training under the National Mental Health Act. In keeping with our past experience that one-third of the trainees in any given year will request support for additional years of training, a total of 2,500 persons have already or will complete their training by the end of this fiscal year, June 30, 1954. The

staff of the National Institute of Mental Health has from time to time surveyed the trainees to determine the areas of activities in which they are engaged. The last such survey was conducted for the period 1947–52 (June 30, 1952). It has not been possible to conduct a yearly survey and keep this information up to date on each trainee because of the amount of work entailed and because of limitations of staff time. Another factor is the frequency with which former trainees should be asked to report to the Federal Government.

For the period 1947–52 a total of 1,633 persons had received support under the National Mental Health Act. Of this number, replies were received from 1,241 individuals who had completed training. This is 76 percent of the total. The results of this survey indicated that they were engaged on a full-time basis, or that a major part of their time was devoted to the following activities:

Total individuals receiving traineeships		1,633
Dropped from training or did not reply to questionnaire	212	
Still in training, not yet in professional practice	180	
		392
Completed training and replied to questionnaire (76 percent)		1,241

	Percent	Number of trainees
Teaching	21	261
Research	4	49
Public service (hospitals, clinics)	56	702
Private practice	12	147
Military service	7	82
Total	100	1,241

Thus 1,012 or 81 percent of those who had completed training and from whom information was received were in some form of voluntary public service which includes teaching, research, hospitals and clinics. Military service has been excluded from public service although some might permanently choose this career and others might go into teaching, research, hospitals, or clinics.

Mr. BUSBEY. Is there any obligation on the part of the people who receive these training grants to spend a certain amount of time in public service?

Dr. FELIX. No, sir; there is not.

Mr. BUSBEY. If we appoint a boy to Annapolis or West Point, he is obligated to spend a certain amount of time in the service and, even when he fulfills that obligation, he is still subject to call in the Reserve.

What is the obligation to the Government in the case of those to whom we give these training grants?

Dr. FELIX. We try to meet that in part, at least, by suggesting to the training institutions who make the appointments—you see, these grants are made to the institutions—that they give special stress to potential teachers, researchers, and people to fill posts in the public service. A great many of the people selected by them do that and this selection procedure has brought them to public service. However, as I believe I said last year, if they do not all go into the public service, it is still a considerable asset to the country; because there are many, many people who need psychiatric care and cannot get it and who are quite capable of and prefer to pay for that care, but who cannot find psychiatrists.

Within the last week, I have had three people call me and ask where they can obtain a psychiatrist for a case in their family which was in urgent need of treatment. In each of those cases I gave them a list of 6 psychiatrists and they have called me within 24 hours and said they could not get any 1 of the 6 for something between 2 and 3 months.

They are filled up. I gave them a list of 6 more and 1 called me over the weekend to say that out of the second 6 he could get no one. And when I return to my office this afternoon, I will supply that person with a third six.

Now as long as this situation exists, we have in some way to fill this gap. These people, if they do not receive this treatment, are going to go on to a more chronic kind of illness. The family will spend, in one way or another, most of its resources, because the illness becomes chronic and finally he is put in a public mental hospital. If we can stop this thing in the first few months, we can save the public purse considerable money.

Mr. THOMAS. Does the American Medical Association have any objections to the Department furnishing these funds for this training?

Dr. FELIX. I have never had any objection from the American Medical Association, and I believe I would have heard if they had any. I am a member of the committee on liaison between the American Psychiatric Association and the American Medical Association, and I think I would have heard about it quite some time ago if that were so.

AMOUNT OF STIPENDS

Mr. BUSBEY. What is the average amount of money paid out to one individual by way of these stipends?

Dr. FELIX. A psychiatrist, which is the most, would be $11,000. That would be the maximum.

Mr. BUSBEY. We gave this individual $11,000 for this special training and there is no obligation on his part to contribute anything back to the Government or the public health service; is there?

Dr. FELIX. No, sir.

Mr. BUSBEY. What would be your thinking in regard to making these stipends on a loan basis, rather than a gift basis?

Dr. FELIX. If I could interject here, one of these gentlemen thinks I have given you a misimpression. That $11,000 was the total over the 4-year period; not $11,000 in 1 year. I want to get that clear in the record.

Mr. BUSBEY. That was my understanding.

Dr. FELIX. I have never given any thought to that, but I cannot think of any arguments pro or con at the moment.

Dr. VAN SLYKE. May I comment on that by saying that all of these stipends are relatively low. Some are in the $3,500 range, at least to begin with. And in order to induce these people to take this training which we find is necessary for public service and to provide mental care around the country, they would have to sacrfiice very considerably while they are taking this training. As the chairman indicated, we could require indentured service. If we did that, however, the number of applicants I am sure would fall off very, very seriously and it would be a disservice to our country not to be able to train people. And the actual result—this is not theory; this is actual results we have obtained—is that more than 80 percent of the people remain in some form of public service. As Dr. Felix indicated, they go into research, or take teaching positions, or work in public clinics for medically indigent people, and so forth.

Mr. BUSBEY. Dr. Felix, you said 80 percent go into public service?

Dr. FELIX. Yes, sir.

Mr. BUSBEY. I think that is very important—the fact that a large percentage do go into public service.

Since psychiatrists who are in private practice get rather large fees for their work it is hard for me to comprehend why more medical students do not go into this field. Maybe you can enlighten me on that, Doctor.

REASONS FOR SHORTAGE OF PSYCHIATRISTS

Dr. FELIX. I certainly can, I think. I am not sure, if I were entering medical school today, that I would have the courage to go into psychiatry. It is a long and very hard road. After 4 years of medical school and 1 year of internship—I should go back and say after 4 years in college, and then 4 years in medical school, and 1 year in internship—one must have a minimum of that—and usually 4 years of supervised training and then 2 more years of experience before they can be recognized by their peers as qualified psychiatrists; even then only after they have passed an examination. This puts a person up to somewhere around 35 years of age, as a rule. A man 35 years of age usually has a family; if he does not, he certainly wants to have, and he does not have too many productive years left.

And not only that, but the actual training of psychiatrists is not a comfortable process. There is a lot you have to learn about yourself which sometimes is not always too comfortable. Many trainees drop by the wayside just because of this aspect.

Now to take another point of view, you think they are reaping a pretty good harvest, but they are by no means in the highest income group for specialists. A psychiatrist will see about 10 patients a day. If they see 10 individual patients, that is a 10-hour day, and he will do this for 5½ and 6 days a week, and most psychiatrists are seeing patients 6½ days a week just because of the demand.

The average fee in this area of the country is $15 an hour. The psychiatrist, then, who sees 10 patients a day, would gross $150. You cannot have an appendectomy done for that amount of money, I do not believe.

I am not in any way decrying the income of another group; I am trying to point out that psychiatrists are not rolling in wealth. I am in public service and everyone knows we do not roll in wealth. But even those who are in private practice are not making the kind of money that people in many other specialties do today.

Now you spoke again about what it means to have these people engage in private practice. I just did a quick calculation. The average cost of hospitalization of a mental patient in a public mental hospital is something over $7,000. That is the average cost. If a psychiatrist in private practice could keep one patient a month—just one patient a month—from going to a mental hospital, he would save the public $84,000 in 1 year. If you deduct from that about $20,000, which would be about right for cost of care given the patients you would still have around $60,000 to $65,000 saved to the public.

Now it costs the Government, over a maximum of 4 years' time, $11,000 in stipends to train one of these people. You have more than gotten your investment back in 1 year and if you figure a psychiatrist as having 20 years of productive life, which is about right, I think you have really received some pretty good return on your investment.

Mr. THOMAS. I have seen a lot of programs of this nature in connection with the Atomic Energy Commission, the National Advisory Committee for Aeronautics, the National Science Foundation, and others and it would help your record immeasurably, Mr. Chairman, if the doctor, for each one of these programs which apparently are very much akin to each other, would give you a statement setting out the formula and the amount they give to these people.

I assume, for instance, a married doctor gets a little more than the single man.

Dr. FELIX. No, he does not.

Mr. THOMAS. If he does not, he ought to. And if he has 2 or 3 children, he ought to get more than one with just a wife. I mean that is the equitable way to do it. I would like to see what formula you use. I have looked through the justifications, and I do not find it.

Mr. BUSBEY. Will you furnish that for the record?

Dr. FELIX. You mean the limit of the amount of stipend paid various people?

Mr. THOMAS. And the formula. You should give the married man with children more than you would give some single fellow who is taking the same course, where he is devoting all of his time to it.

And another thing that might be helpful is some short statement in the record as to how these students are selected, You said the funds were turned over to the medical schools. By what standards do they select them?

Dr. FELIX. I can supply that.

(The requested information follows:)

The formula used in payment of traineeships for training in the various specialized areas is as follows:

Level	Psychiatry	Clinical psychology	Psychiatric social work	Psychiatric nursing
1—$1,200		$1,200		$1,200
2—$1,600		1,600	$1,600	1,600
3—$2,000	$2,000	2,000		2,000
4—$2,400	2,400	2,400	2,400	2,400
5—$3,000	3,000			
6—$3,600	3,600			

In the first year of training, a recipient receives the lowest applicable level of traineeship, the level increasing by one each succeeding year. There is no adjustment of these levels because of marital or family situation of recipients.

The traineeships for support of training of individuals are awarded to the training centers. Traineeships are awarded to institutions recommended by the National Advisory Mental Health Council for receipt of such awards after careful review by the Council of their teaching program. The training centers, because of their familiarity with and intimate knowledge of the professional development of each student, are responsible for selecting and determining the eligibility of each trainee. The applicant for a traineeship must be a graduate of a school qualified to provide preprofessional training and be enrolled in a training program qualified to provide specialized training. The scholarship record, professional aptitude for training, and the applicant's objectives to enter upon a career in teaching, research, or public service are given topmost consideration in the selection of individuals to whom traineeships are awarded by the training centers.

Mr. THOMAS. I recall the conversation with Dr. Menninger of Kansas about a year ago when he was down here seeking funds for a veterans' hospital in his town.

Mr. BUSBEY. He appeared before this committee about 2 years ago.

Mr. THOMAS. I think he is rated as one of the top men in the country.

Dr. FELIX. That is correct.

Mr. THOMAS. And he very frankly stated that from the research point of view very little progress has been made in the last 150 years; that there is now not much more basic knowledge about mental diseases than there was 150 years ago. In treatments they are making some progress, but it is the cause, I presume, where your main interest lies in your Mental Health Institute out at Bethesda. And your stipends do not do much to help you out with this problem.

Dr. FELIX. Of course, if a person is going into psychiatric research, he has to be trained as a psychiatrist first before he can go into research.

Mr. THOMAS. If he is a practitioner, as you pointed out, he hardly has time to be trained.

Dr. FELIX. That is correct.

Mr. THOMAS. He would have little time to do any research, and where the money ought to be spent is in research.

(Discussion off the record.)

Mr. BUSBEY. Doctor, is there any duplication between your work at Hagerstown and that of the Public Health Methods Division?

Dr. FELIX. No, sir. The Public Health Methods Division is the division which has over the years collected these health records and they are collectors and custodians of those records, and we are using those records and matching them with records in the State hospitals. We could not do the work had they not amassed these records over the years.

Mr. BUSBEY. Are there any further questions?

Mr. THOMAS. No. I think these gentlemen have presented their case very well. This is a pretty good program. It may look like pouring money down a rathole today, but it may come back many times in future benefits.

Mr. BUSBEY. If there are no further questions, that will be all for this appropriation item.

Dr. FELIX. Thank you, Mr. Chairman. I appreciate your courtesy in hearing my defense.

REPLIES OF DR. ROBERT H. FELIX, DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH, TO QUESTIONS SUBSEQUENTLY SUBMITTED BY CONGRESSMAN FOGARTY

Q. What was the Truman budget estimate for fiscal year 1954?—A. $15,500,000.

Q. What was the revised Eisenhower budget for fiscal year 1954?—A. $9,817,000.

Q. How much did the House of Representatives provide in its bill for fiscal year 1954?—A. $10,895,000.

Q. How much did the Senate provide for fiscal year 1954?—A. $12,345,000.

Q. How much did the appropriations law provide for fiscal year 1954?—A. $12,095,000.

Q. How much do you request now for fiscal year 1955?—A. $12,460,000.

Q. Is the 1955 budget for extramural research only $2,587,000 the same as last year's?—A. The 1954 appropriation and 1955 estimate are both $2,587,000.

Q. A study under the auspices of the National Governors' Conference in 1953 covered all State mental health directors and all research workers directing projects in the various States. The answers to queries to these officials pinpointed three big bottlenecks to increased research—insufficient appropriations, shortage of research workers at current low salaries, and lack of time of psychiatric personnel due to the pressure of daily care of patients. Do you agree that these are

the major obstacles to increased research?—A. These are major factors in the current relatively small amount of research that is being done at State institutions.

Q. In a followup query to its original set of questions the Governors' Conference study asked research project directors this: "If you had adequate money and personnel, would the situation in your institution permit you to develop few or many mental-health research projects?" The vast majority of the answers fell into the "very many" categories. Are these findings correct?—A. Yes, if adequate money and personnel competent in research were available, there would be very many opportunities for clinical research.

Q. Then why is there no increase in the research grant-in-aid program in this year's budget? In past years, we have heard testimony that the problem of mental illness has risen to the point where it is costing the taxpayers of this country over a billion dollars a year. Over the past several years the tax outlay has been increased at an average of $90 million a year. The patient population in our hospitals has been going up more than 12,000 each year.

The Chief of the Mental Health Institute, testifying before the House Interstate and Foreign Commerce Committee on the extent of the problem, said: "If the present birthrate remains constant, if the number of mentally ill who are hospitalized remain constant, and if the cost for hospitalizing the mentally ill remains constant, each year's crop of new babies will, because of the percentage of them who will go to mental hospitals, cost the taxpayers—this is just the taxpayers and not any private foundation—$800 million before they die."—A. The need for research is one important factor in determining the amount of support; total funds available for all Federal programs, funds from other sources, and research personnel and facilities available, are other factors. There has been an increase in Federal support of research grants from $400,000 in 1948, the first year of the program, to the present level of $2,587,000. The last increase was in 1954. Solely from a medical research point of view, more effort could fruitfully be devoted to mental-health investigations. However, by more intensive research we could cut the average length of stay in institutions substantially. Both on the psychiatric and biochemical front knowledge of the origins of mental disorders can be extended by more intensive research.

Q. Since it is generally agreed that we will be unable to reduce these enormous costs until we find out the causes and cures for many of these types of mental illnesses, why do we spend only a few million dollars a year on research and more than a billion dollars a year on maintenance?—A. In part, this has been due to the fact that historically as a Nation we have been slow to admit that mental illness is just that—an illness—and not something shameful, to be put aside and not discussed. As a people, however, we accepted our responsibility for our fellow men and were willing to build facilities to care for them to a point where the cost of maintenance has now reached a staggering sum. The bill for care of the mentally ill kept rising, but we were either unwilling, or did not know how, to do much about the problem. Fortunately, that picture is now changing and research in mental illness has become more promising. More scientists are engaged in mental-health research. Hopeful leads have been developed, where before there were none—leads which suggest to scientists that here is a fruitful area for their efforts. Limitations on personnel, in particular those especially qualified for research, will be a barrier to inauguration of research on a truly large scale in the future unless training activities are continued and expanded. There is greater recognition in many quarters that more research is needed and could be undertaken with more personnel. One example is the action of the Governor's Conference on Mental Health, held at Detroit in February. This conference adopted a 10-point program which emphasizes the need for States to appropriate funds for research and training in addition to care and treatment at State institutions.

Q. Are there on file with the National Institute of Mental Health, applications for mental-health research construction totaling more than $22 million from hard-pressed, nonprofit foundations, medical schools, and hospitals all over the country?—A. Since the National Institute of Mental Health has not had a construction grants program, no formal applications have been accepted. Letters and informal applications have come to the Institute from time to time from institutions who were interested in grants for construction of research facilities. A compilation of these inquiries was made some time ago and totaled more than $22 million. More recently, in December 1953, Senator Thye requested up-to-date information on this subject, and a canvass was made by the National Institutes of Health of those institutions who had earlier indicated some interest in this type of grant. These more recent data show needs totaling $19,837,671 from those 50 institutions replying to the inquiry.

Q. Is it not also true that since the passage of the Mental Health Act in 1946 the National Institute of Mental Health has not received one cent of research construction money for allocation to these hard-pressed institutions? And don't you think there should be funds appropriated for this purpose?—A. No funds have been appropriated in any year to the National Institute of Mental Health for research construction grants. A program in this area would make possible both a large volume of research and more effective research in the field of mental health.

Q. Are the training and teaching grants in mental health reduced $500,000 under last year's figure?—A. Yes.

Q. According to the minimum standards of the American Psychiatric Association the average mental hospital is 66 percent understaffed in nurses; 40 percent understaffed in psychiatrists; 75 percent understaffed in psychiatric social workers; 76 percent understaffed in clinical psychologists, and so forth. In the light of these shortages why does the budget reduce the amount available for teaching grants to provide additional personnel?—A. Training grants are one part of the whole mental health program. In preparing this budget, it was necessary to consider the total which might be devoted to mental-health purposes from funds available to the Federal Government for all its needs, and to make the best distribution of that total. As in the case of research projects, the estimate for training was submitted with consideration for a balanced program and for the needs of the other elements in the program. The estimate for training grants for 1955 is the same as the 1953 appropriation for that purpose.

It should be emphasized that in the 1955 estimate, training grants are still at the highest level, by a considerable margin, of any activity. Training continues to be, therefore, the program to which we give greatest emphasis and the area we identify as presently having need for the greatest amount of support. With the funds requested in this budget, as was the case in fiscal year 1953, a very worthwhile and energetic program can be prosecuted. However, with grants at this level it will not be possible to increase the number of well-trained people in the various mental-health disciplines. The shortages will therefore continue.

Q. In a speech delivered to the National Governors' Conference on Mental Health in February of this year, Dr. Kenneth Appel, president of the American Psychiatric Association, charged that because of shortages of psychiatric personnel, many successful treatments for various types of mental illness were not being given to thousands of mental patients. For example, insulin treatment is not being given in 40 percent of our hospitals because of lack of trained personnel. Here are Dr. Appel's exact words: "Imagine what it would be like if you, as a physician, could not give insulin for diabetes, liver extract for anemia, or penicillin for peritonitis. This is the practical situation of a psychiatrist today in our mental hospitals. This is unbusinesslike, it is uneconomic, it is inefficient and it is un-American." If this statement is true, why do you produce a budget which reduces training grants to provide these desperately needed psychiatrists and auxiliary personnel?—A. We must decide how to allocate funds, realizing that all areas of research and training are not adequately supported from the point of view of the physician and investigator.

Q. Since 1950 the Institute of Mental Health has brought before us budgets reducing the amount of money for clinics and other community services. In 1950 these items were allotted $3,550,000. In both last year's and this year's budgets, the item is only $2,325,000. I do not understand the justification for cutting the funds available to this program. Isn't it true that there is hardly a clinic in any city or rural area of the country which does not have a long waiting list of emotionally sick people needing treatment?—A. Most clinics do have waiting lists.

Q. Just a few months ago the Child Welfare League of America published the first nationwide study of treatment centers for disturbed children.

According to this report, 25 States have no child-guidance centers and there are only 30 resident-treatment centers in the country which are altogether capable of treating 1,500 children a year. According to this report, these centers have 10 times as many applicants as they are able to handle each year. In corroboration of these findings, a just-completed 3-year research project of the Columbia University department of psychiatry points out that 10 percent of public-school children in this country are emotionally disturbed and need mental guidance, but that the majority of schools lack the trained personnel or facilities to aid these disturbed children.

In the light of these findings, why have your recent budgets reduced the grant-in-aid money available for important clinic and community services?—A. The

report of the Child Welfare League deals with residential treatment centers for children. Mental health grants-in-aid are for community mental-health services and are not available to support inpatient services for children or adults. Of the 322 clinics that were aided by grant funds in 1953, 306 provide services for children. Some provide services for children only, but most provide services to both adults and chiildren. In 1953, there were seven States (Idaho, Nevada, Arizona, New Mexico, North Dakota, Utah, and Wyoming) that had no mental health clinic services for children.

A decision has been made that the Federal Government would not continue its previous measure of support of State programs which are aided by Federal grants, and a number of grant programs were reduced, including grants to States for community mental health activities. Further consideration of the appropriate division of effort between the Federal and State Governments is currently under study.

Q. The 1954 budget was a reduction of approximately $700,000 under the 1953 budget in this area. Have any clinics been closed down or any community services abolished because of these cuts? Would you give the committee details of these cuts, State by State? A. 1. In 29 States and Territories the increase in State and local funds was enough to make up for the decrease in Federal funds.

2. In the following 24 States and Territories, there was a decrease of 10 percent or more in funds available from all sources:

1. Alabama
2. Arkansas
3. Delaware
4. District of Columbia
5. Georgia
6. Idaho
7. Indiana
8. Kansas
9. Kentucky
10. Louisiana
11. Michigan
12. Minnesota
13. Mississippi
14. Missouri
15. Nebraska
16. New Mexico
17. Oklahoma
18. Oregon
19. Texas
20. West Virginia
21. Wisconsin
22. Wyoming
23. Hawaii
24. Virgin Islands

3. Information received in the National Institute of Mental Health indicates that the decrease in funds available has resulted in reduction in—

(1) clinic services in the following States:

1. Alabama
2. Delaware
3. District of Columbia
4. Idaho
5. Kentucky
6. West Virginia
7. Minnesota
8. Hawaii
9. Kansas
10. Missouri

(2) other community mental health services in:

1. Alabama
2. Idaho
3. Indiana
4. Kentucky
5. Michigan
6. New Mexico
7. Wisconsin
8. Nebraska
9. Texas
10. West Virginia
11. Kansas
12. Missouri
13. Minnesota

4. The following table compares State allotments in 1953 with 1954.

Mental health activities—Allotment to States

	1953	1954		1953	1954
Total	$3,100,000	$2,325,000	Nevada	$19,200	$17,700
			New Hampshire	19,200	17,700
Alabama	68,900	49,300	New Jersey	86,300	63,200
Arizona	19,200	17,700	New Mexico	19,200	17,700
Arkansas	42,700	31,000	New York	257,200	186,300
California	186,800	139,400	North Carolina	87,900	64,200
Colorado	24,900	18,300	North Dakota	19,200	17,700
Connecticut	35,400	25,600	Ohio	144,700	104,800
Delaware	19,200	17,700	Oklahoma	45,300	33,100
District of Columbia	19,200	17,700	Oregon	28,000	20,500
Florida	55,300	42,400	Pennsylvania	193,300	139,000
Georgia	74,200	53,700	Rhode Island	19,200	17,700
Idaho	19,200	17,700	South Carolina	47,400	34,200
Illinois	153,400	110,800	South Dakota	19,200	17,700
Indiana	73,600	53,700	Tennessee	70,600	51,300
Iowa	49,000	35,200	Texas	150,800	111,600
Kansas	36,100	26,400	Utah	19,200	17,700
Kentucky	64,100	45,500	Vermont	19,200	17,700
Louisiana	56,400	41,400	Virginia	66,900	49,000
Maine	19,200	17,700	Washington	43,000	31,400
Maryland	43,200	32,100	West Virginia	41,000	29,300
Massachusetts	85,100	61,600	Wisconsin	64,000	46,200
Michigan	116,400	85,300	Wyoming	19,200	17,700
Minnesota	56,700	40,700	Hawaii	19,200	17,700
Mississippi	52,800	38,400	Puerto Rico	53,600	38,800
Missouri	74,600	54,700	Virgin Islands	19,200	17,700
Montana	19,200	17,700	Alaska	19,200	17,700
Nebraska	24,800	18,000			

MONDAY, APRIL 26, 1954.

NATIONAL HEART INSTITUTE

WITNESSES

DR. JAMES WATT, DIRECTOR, NATIONAL HEART INSTITUTE
DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. C. J. VAN SLYKE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
ROY L. HARLOW, CHIEF FINANCE OFFICER
JAMES F. KELLY, BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$12,000,000	$15,168,000	$14,570,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		1,750	
Transferred to "Salaries and expenses, defense production activities, Health, Education, and Welfare," pursuant to Public Law 547	−55,000		
Adjusted appropriation or estimate	11,945,000	15,169,750	14,570,000
Unobligated balance, estimated savings	−546,974		
Obligations incurred	11,398,026	15,169,750	14,570,000
Comparative transfer to—			
"Neurology and blindness activities, Public Health Service"	−169,530		
"Salaries and expenses, Office of the Secretary of Health, Education, and Welfare"	−17,481		
"Salaries and expenses, Office of the General Counsel, Office of the Secretary of Health, Education, and Welfare"	−2,000		
Total obligations	11,209,015	15,169,750	14,570,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants:			
(a) Grants for research and training:			
(1) Research projects	$4,948,325	$6,843,000	$6,400,000
(2) Research fellowships	450,000	580,000	450,000
(3) Teaching of medical subjects	1,368,487	2,628,000	2,362,000
(4) Training stipends	248,703	400,000	400,000
(b) Grants for detection, diagnosis, and other control activities	1,445,997	1,125,000	1,125,000
2. Direct operations:			
(a) Research	2,128,978	2,987,750	3,276,000
(b) Other direct operations:			
(1) Review and approval of research and training grants	82,040	133,000	100,000
(2) Technical assistance to States	337,558	297,000	290,000
(3) Administration	198,927	176,000	167,000
Total obligations	11,209,015	15,169,750	14,570,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	364	385	385
Full-time equivalent of all other positions	8	11	10
Average number of all employees	325	357	366
Average salaries and grades:			
General schedule grades:			
Average salary	$4,088	$4,244	$4,244
Average grade	GS-5.8	GS-6.0	GS-6.0
01 Personal services:			
Permanent positions	$1,536,606	$1,745,808	$1,801,008
Other positions	42,276	52,000	41,100
Regular pay in excess of 52-week base	3,635	4,034	4,034
Payment above basic rates	2,039	3,600	3,200
Total personal services	1,584,556	1,805,442	1,849,342
02 Travel	70,037	71,300	64,800
03 Transportation of things	18,882	18,900	14,900
04 Communication services	12,162	15,550	15,500
05 Rents and utility services	4,006	4,000	4,000
06 Printing and reproduction	7,433	12,900	11,900
07 Other contractual services	62,895	60,800	57,300
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	660,309	1,270,000	1,522,500
08 Supplies and materials	163,847	221,500	225,100
09 Equipment	147,554	98,400	56,300
11 Grants, subsidies, and contributions	8,476,732	11,591,000	10,752,000
15 Taxes and assessments	4,081	4,900	4,700
Subtotal	11,212,494	15,174,692	14,578,342
Deduct charges for quarters and subsistence	3,479	4,942	8,342
Total obligations	11,209,015	15,169,750	14,570,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$1,525,080	$1,375,530	$1,690,280
Obligations incurred during the year	11,398,026	15,169,750	14,570,000
	12,923,106	16,545,280	16,260,280
Deduct:			
Adjustment in obligations of prior years	178,543		
Obligated balance carried to certified claims account	3,666		
Unliquidated obligations, end of year	1,375,530	1,690,280	1,660,280
Total expenditures	11,365,367	14,855,000	14,600,000
Expenditures are distributed as follows:			
Out of current authorizations	10,117,156	13,805,000	13,200,000
Out of prior authorizations	1,248,211	1,050,000	1,400,000

GENERAL STATEMENT

Mr. BUSBEY. The next appropriation request which we have for consideration is for the National Heart Institute. We are very happy to have with us Dr. Watt, Director of the Institute. At this point in the record, Dr. Watt, we shall insert your prepared statement.

(The matter referred to is as follows:)

Mr. Chairman and members of the committee:

HISTORICAL BACKGROUND

The National Heart Institute was established by the bipartisan National Heart Act, unanimously passed by the 80th Congress in 1948. The Institute's function is to conduct and support research and training in heart disease and to aid the States in the development of community programs for the control of heart disease.

Fiscal year 1955 will represent the sixth year of the National Heart Institute program, designed and supported by the Congress and administered as the Federal Government's share in a national undertaking against heart disease, joining and aiding the partnership of interests in the heart disease field.

The current budget proposal, for fiscal year 1955 reflects the stage of progress of the Institute program, the paramount importance of research, and the bases for providing for the consolidation of ground already won in the attack on heart disease and for moving ahead to the conquest of the Nation's leading killer.

It is unnecessary to deal at length with the importance of heart and blood-vessel diseases in terms of their importance in the causation of disability and death. Sufficient to say that they are the leading causes of death, 1 out of 2 of all deaths each year being due to them. One point does deserve emphasis since heart disease is often erroneously considered to occur chiefly among the old.

LEADING KILLER IN THE PRODUCTIVE YEARS

Heart disease is the major cause of death before old age comes.

It is a leading cause of death in the childhood ages. It causes one-sixth of all deaths in the military ages, 20–39. It causes more than one-third of all deaths in the productive years, 35–54. It causes about one-half or more of all deaths in the years 55–74.

The nearly 800,000 deaths from heart disease in 1953 are like the visible top of an iceberg: Below lies a vaster mass—the amount of heart illness and the extent of disability attributable to it.

But mere statistics and metaphors do not convey the meaning of heart disease in human terms. Every case of heart disease, whether it results in immediate death, in prolonged disability, or in less severe effects, imposes a burden of suffering and causes economic loss. Every case affects not only the individual stricken, but also his family and his community. The sum of all the heart cases and heart deaths in the United States is so great that no one can hope to escape being touched in some way by the effects. The sum of the economic cost is staggering, as may be seen by one item of cost, which, though great, is far from being the total: $1 billion paid in 1953 by insurance companies in heart-disease death claims.

The endeavor against heart disease at one time was much like embarking upon a campaign with a great but almost unknown enemy. This is not true today, for at the present time the problem is fully identified. Still the campaign must be carried on patiently, must consist of actions, skirmishes, attritions, as scientific knowledge encompasses first new conception, later practical applications on a modest scale, and finally total victory.

The greatest dividends will come from the seeking out of the underlying factors of rheumatic, hypertensive, and arteriosclerotic heart disease, which account for the vast majority of the disability and deaths from heart ailments. Medicine's most complete conquests over disease are largely embodied in the discovery of specific and contributory causes of diseases. However, much progress in the control of heart disease in all of its three major forms is being accomplished through an application of partial measures aimed at amelioration if not preventing these diseases. These new facts are emerging repetitively from the laboratory and the clinic.

NATIONAL HEART INSTITUTE PROGRAM

The program of the National Heart Institute is planned to meet the challenge of heart disease, recognizing that it is a major disabler, the leading killer, and a tremendous economic burden on the Nation.

The National Heart Institute program, therefore, has two major objectives: (1) to find new and better ways of preventing, diagnosing, treating, and curing heart disease and (2) to help in the application of what is already known to reduce death, disability, and suffering caused by heart disease. The Heart Institute directly administers programs of research and support of research and training. It provides technical services and, through its Director, serves as the focal point for the total Public Health Service heart program, which includes activities, administered by the Service's Bureau of State Services, for assisting the development of heart disease control programs in the States and Territories.

The purpose of these activities is to bring about, through public health techniques, the widest possible application of methods and measures which have been proven to be effective in finding, preventing, diagnosing, and treating heart disease. Application of existing knowledge can considerably reduce death, disability, and suffering from heart ailments.

Grants-in-aid to the States and Territories to assist them are made according to a formula based on the population and economic needs of the State. Each State is required to match each $2 of Federal money with $1 of its own money. Federal money available for such grants in the current fiscal year is $1,125,000.

Grants help State and local health departments to employ and train staffs to find and refer heart disease cases to private physicians for diagnosis and treatment; to furnish follow-up services in the home; to provide training opportunities to physicians and public health workers; and in other ways to aid in restoring those with heart disease to near-normal life and useful activity. Generally, State activities include provision for several of the following: Medical direction, professional and lay education, clinic improvement, public health nursing services, and medical social services.

Assistance is also given the States by providing information on technical matters relating to control. Knowledge and experience which is gained in conducting pilot studies and demonstrations is made available. One of the activities in this connection is cooperation with tuberculosis surveys so that chest plates taken to discover tuberculosis are also examined for possible indications of heart diseases. From such studies, as for example one in a Southern State not long ago, much valuable information for program direction is also obtained.

Another activity is promoting the safe use of drugs which prevent blood clots, an important and frequently life-saving treatment for many persons suffering heart attacks. Use of these requires accurate laboratory control by persons trained in the technique of quickly determining blood-clotting time. The training of such technicians is being aided by teams which move from State to State, providing instruction in the essential laboratory procedures.

RHEUMATIC FEVER PREVENTION

In an area of especial interest, rheumatic fever and its crippling companion rheumatic heart disease, an encouraging attack through community health activities has been undertaken. Rheumatic fever, though declining as a cause of death, is still responsible for 90 percent of all heart disease in children and is an important cause of heart disease in older years, with rheumatic heart disease accounting for some 20,000 deaths per year. Moreover, it is susceptible to the application of already known measures. Although we do not fully know the cause of rheumatic fever, there is an accumulated set of facts which are sufficient for saving lives and preventing much disability. It is, therefore, of public health interest and importance.

It is established that rheumatic heart disease can be prevented by preventing rheumatic fever. Rheumatic fever can be prevented by controlling the streptococcal illness which almost always precedes an attack. Streptococcal illness can be controlled by treatment with antibiotics.

Adequate and early treatment of strep infections will prevent most first attacks of rheumatic fever. Individuals who have had an attack of rheumatic fever, and who are therefore particularly vulnerable to recurrences, can escape further attacks by regular treatment.

Recommendations on the prevention of rheumatic fever have been widely disseminated as part of a national prevention campaign started in January 1953, in which the American Heart Association and the National Heart Institute, Public

Health Service, are cooperating. If this campaign is successful, it is probable that in very few years, despite the lack of complete knowledge of the cause of the disease, the number of new cases of rheumatic fever would be extremely low. Thus, the knowledge which could mean the virtual elimination of rheumatic heart disease in the future is at hand today.

TEACHING GRANTS AND CLINICAL TRAINEESHIPS

The program of teaching grants is making it possible for medical schools to coordinate and improve their teaching of heart disease subjects and to place adequate emphasis on the cardiovascular field. Institutions are not restricted to a rigid plan in developing their teaching programs, and the funds are utilized in varying ways by different schools. The grants are approved for a 1-year period, but may be renewed annually from appropriated funds.

That heart teaching in the medical schools could be improved and expanded has been recognized by the schools and they have done much toward this end. The need, however, is a continuing one, that grows as it continues. The rapid and marked advances of heart research have brought this about, having, in a sense, a disconcerting impact upon medical education.

The investment which the medical schools and their supporters, both public and private, are making in this field is an investment in better heart care for the people of the United States. Already the percentage of heart disease cases in the average medical practice is high; the number of persons who will go to their physicians because of heart disease will increase still more in the coming years. It is, therefore, especially important that students now and in the future be given strong courses of instruction in heart disease, thoroughly covering the latest advances.

The present number of cardiologists and physicians with detailed knowledge of heart disease in active practice today is far too low compared with the amount of heart disease in the Nation. The Institute's clinical traineeships program is providing a means of partly meeting this need for more clinical personnel specializing in heart and blood vessel diseases.

RESEARCH TRAINING

Skilled investigators are too few in number in the special field of heart disease as well as in basic disciplines like physics, chemistry, physiology, and so on, from which come knowledge of fundamental importance to heart disease and other illnesses.

The heart research fellowships program of the National Heart Institute is helping to relieve an absolute scarcity by offering encouragement and assistance to some of the more brilliant and promising minds to enter upon a research career. It helps to develop these men and women to a stage in which they can become responsible investigators themselves, conceiving, heading, and executing research work of high caliber. The need for highly trained workers is a continuing one, and the many promising avenues of investigation that have been opened up in heart disease in recent years offer much opportunity for heart research fellows and also indicate the importance of this aspect of the Institute program.

RESEARCH GRANTS

Heart disease research in universities and hospitals all over the country is being fostered and supported through research grants. Under this program, funds are granted to individual scientists for carrying out important heart disease projects. In effect, the program is serving to enlist non-Government facilities and scientists in the research attack. It has put many brains to work on heart problems that urgently need solving.

The stimulation given by the grant program has significanlty raised the level of heart research. The studies carried out represent research progress that could not otherwise have been made, since the program supports only projects for which institutional funds are not adequate. It does not take the place of support from foundations, private philanthropy, or voluntary health organizations, but, as experience has shown, has encouraged the growth of support by such groups.

More than 500 research projects are currently underway in over 100 universities and hospitals in all parts of the country through National Heart Institute research grants support. A tabulation, showing the problem areas covered, the number of projects in each area, and the amount of support in each, has recently been made and can be supplied to the committee if desired. These projects cover both

clinical and basic fields important to heart disease problems, with concentration upon the major problems such as hardening of the arteries.

The following are a few of the many achievements, throwing important new light on a number of heart disease problems, resulting from the research grants program.

Rheumatic fever: Studies in the treatment and prevention of rheumatic fever added new and applicable knowledge. At the University of Pittsburgh School of Medicine, it was found that a treatment which combines cortisone or ACTH with a special diet and standard therapeutic measures, when undertaken promptly, can prevent permanent heart damage in a high percentage of children who have suffered a single attack of carditis. In those whose hearts have already been damaged, the further extension of the injury can be reduced.

In addition to the development of methods for control of rheumatic fever, the causes and the conditions under which it develops are being uncovered. Grant-supported research at the University of Chicago has been undertaken to study in detail certain of the life processes of the type of bacteria associated with rheumatic fever. Another group of investigators, at the University of Minnesota Medical School, has determined that conditions of stress within the body which increase the strain on the heart render an individual much more susceptible to bacterial infection.

Hypertension: The numerous factors which are involved in the development of high blood pressure include the interactions of the nervous system, kidneys and adrenal glands as well as the heart and blood vessels. Research in the field of hypertension includes the experimental production of increased pressure, relation of kidney disease to changes in blood pressure, the effects of removal of adrenal tissue or section of sympathetic nerves, and the search for drugs which will effectively lower blood pressure without causing undesirable side effects.

The use of a combination of two presently available drugs, hexamethonium and hydrazinophthalazine, carried out under adequate medical supervision, is being developed at the Washington University School of Medicine, and may prove more practical than the surgical removal of sympathetic nerves as a therapy for hypertension. Removal of adrenal tissue has also been of benefit to a few selected patients with otherwise intractable hypertension; but the long-term results of this procedure will not be available for several years.

The relief of chronic mental or emotional tension by psychotherapy has also had a beneficial effect on hypertension in a limited number of trials, according to findings at Cornell University Medical College.

Arteriosclerosis: The relation of hardening of the arteries to the increase in concentration of cholesterol or of lipoproteins in the blood continues to be a subject for considerable research. The previously reported cooperative study of four research institutions, using the ultracentrifuge to separate lipoprotein molecules of varying sizes from blood serum, has been carried on for a sufficient length of time to permit analysis of results, further research and analysis is needed, however, before clearcut conclusions can be reached.

Since one method for the possible control of the fatty components of the blood lies in the restriction of fat intake through a low-fat diet, considerable research has been conducted during the year on the relation of diet to the development or to the prevention of arteriosclerosis. A number of investigators have approached this problem from various angles, and it has been found that there may be several factors which play an important part in reducing the cholesterol content of the blood.

It has been shown in grant studies at the University of California that the liver normally manufactures cholesterol, and this function may increase if the cholesterol level of the diet is reduced beyond a certain amount.

It has long been known that the blood of cholesterol of certain animals, notably chickens and rabbits, is readily increased by feeding a high-cholesterol diet. Some important recent work indicates that the addition of ferric chloride or of dihydrocholesterol to a high-cholesterol diet will precent this increase in blood cholesterol in chickens.

Other investigations point out the importance of other dietary and chemical factors in regulating the cholesterol content of blood and the deposition of fatty material in the walls of blood vessels. It was found by heart grantees at Michael Reese Hospital in Chicago that the administration of estrogen (female sex hormone) or of a combination of estrogen and androgen (male sex hormone) will prevent the deposit of fat in blood vessels of chicks on a high-cholesterol diet.

This may have a direct bearing on the fact that in humans arteriosclerosis is more prevalent in males and in females after the cessation of estrogen production, a finding reported in grant studies conducted at New York Medical College.

Heart failure: One of the important conditions associated with heart failure is the accumulation of fluid in the tissues and much research is being carried on in connection with the relation of fluid distribution and salt imbalance in the body.

Some significant research, published during the past year by a grantee at the University of Pittsburgh Medical School, has demonstrated the possibility of using the so-called cation exchange resins to absorb salt and thereby reduce the swelling and prevent its reaccumulation. In clinical investigations at the University of Pennsylvania Hospital, this method has now been used on a number of patients with considerable success.

Surgery: Notable advances in this field include increased use in human patients of the mechanical heart-lung apparatus which has been developed with the aid of Heart Institute grants. This apparatus provides adequate circulation of blood while bypassing the heart, thus permitting repair of cardiac defects and injuries in a bloodless heart.

A new surgical technique has been developed at the Georgetown University Medical School whereby a plastic rod can be inserted into the heart, thus permitting the surgeon to see and repair holes in the partition between the two sides of the heart.

The aortic valve, reported last year, which was developed in dogs to replace a defective heart valve has been successfully inserted in aortas of human patients. Further improvement of this valve is in progress.

Methods are being perfected for the storage of blood vessel sections so that they may be used as grafts to repair diseased and injured vessels. One recent promising technique has adapted the rapid freezing-drying method which has been used for many years as a means of preserving bacteria and for preparing tissues for microscopic study. Other studies are evaluating the use of plastic tubes for the repair of blood vessels.

DIRECT RESEARCH

The program of research conducted by the National Heart Institute has two goals: (1) to increase fundamental and clinical knowledge of the underlying disease processes affecting the heart and circulating system and (2) to evolve information which will permit the prevention or amelioration of these diseases. Studies of phenomena related to the heart and heart disease are carried out on a broad front, ranging from basic investigations on the function of cells to those aimed at improving treatment of patients with cardiac failure—the end result of many forms of heart disease. The facilities for patient study afforded by the Clinical Center are providing challenging research opportunities as well as making possible for the first time a rounded and integrated investigative program.

Significant research progress was made during the past year, including both extensions of work begun during 1952 and newly initiated programs. Many of the efforts during the year were directed toward consolidating accumulated findings in order to develop approaches for the practical application of this new knowledge to the study of human patients in the Clinical Center. At the same time, new and provocative observations were made at the basic research level, some of which promise to be valuable in the development of new measures for the treatment of specific types of cardiovascular disease.

Therapeutic agents: Research aimed at developing new therapeutic agents and toward furthering understanding of the action of existing cardiovascular drugs has been particularly productive. One important aspect of this work, the study of the distribution and fate of drugs in animals and in human subjects, has resulted in the development of drugs possessing valuable properties and affords a rational basis for the development of new drugs.

Heart Institute scientists have found that 2 substances useful in maintaining blood pressure during anesthesia, ephedrine, and amphetamine, concentrate in various organs at levels 10 to 50 times that present in the circulating plasma. This property of tissue concentration is advantageous as it results in a sort of buffering action which helps maintain a more constant level of the agents in body fluids.

Since there exist mechanisms in the body for destroying these drugs, it is also of considerable importance to determine their nature and to develop substances which might prevent such destruction or control it so as to provide more favorable therapy. In studies of the compound known as SKF–525 A, Institute researchers found that this substance possessed the ability to block the destruction of a number of drugs, including amphetamine and ephedrine. Several such inhibiting agents have now been synthesized, and their possible therapeutic value is being investigated.

Anti-inflammatory agents: Notable work was also done with the drug phenylbutazone. This agent, which mimics in many ways the action of cortisone and ACTH, has proved to be a useful anti-inflammatory drug in such conditions as rheumatoid arthritis and acute gouty arthritis. Rheumatoid arthritis and rheumatic heart disease are frequently encountered in the same individual and, since phenylbutazone causes retention of salt and water in the body through its action on the kidney, its use could be exceedingly harmful in cardiac patients.

The high degree of activity of this drug has led to the establishment of a new program searching specifically for anti-inflammatory agents. These have not been looked for in the past by suitable screening techniques but have been discovered in the search for analgesics. The working premise upon which this work is based is that anti-inflammatory agents are not necessarily analgesics and many likely have been discarded as useless. A compound with phenylbutazone activity with no side effects would be a therapeutic triumph and is not beyond expectations.

Heart Institute research has developed a method for the determination of phenylbutazone in biological fluids, and important data have been gathered regarding its metabolism and fate in the body. These findings have improved the manner in which phenylbutazone is used clinically, and the information obtained on the relationship of dosage to plasma levels will enable physicians to modify the high dosage schedule commonly employed at present. Thus the safer employment of this valuable therapeutic agent in cardiac patients may result.

Hypertension: A systematic search for plant materials affecting the cardiovascular system is in progress, and a number of compounds reported to depress blood pressure are being investigated. A noteworthy achievement of these studies has been the isolation from the leaves of the rhododendron plant of a colorless, crystalline substance which is active in very small amounts. Studies on the structure and nature of this blood-pressure-lowering material are being energetically pursued, meanwhile the drug is about to go into trial for the treatment of clinical center patients.

Although the general program of isolating pharmacologically active compounds from natural sources was initiated only during the past year, a large number of pure substances have already been isolated. Pharmacological testing of several compounds to ascertain their effects on the cardiovascular system is now under way.

High blood pressure is also being investigated from the standpoint of the normal naturally occurring hormonal agents involved in cardiovascular physiology. In addition to studies of adrenalin, another agent involved in the regulation of blood pressure, serotonin, has been studied with relation to its synthesis in the body. It was discovered that relatively high concentrations of an enzyme (biological catalyst) which produces serotonin exist in the kidney. This enzyme has been partially purified and should be of considerable value in elucidating the manner in which serotonin is produced under conditions of cardiovascular stress.

Arteriosclerosis and coronary artery disease: Studies in metabolism are concentrating on mechanisms of lipid transport, an area of great importance to the understanding of atherosclerosis, the form of artery disease which leads to 9 out of 10 heart attacks. This work continues Institute investigations which earlier resulted in the delineation of a biochemical system in the body, involving at least four components related to control of the level of abnormal fatty molecules in the blood.

A deficiency in any part of this system may adversely affect the fat-handling ability of the body, and thereby foster hardening of the arteries. Bringing us closer to an understanding of the underlying causes of the major disease of our times, this important work is being widely and deeply prosecuted.

Assay methods have been developed for determining quantities of activities of the components, and in studies in the clinical center a number of patients are being assayed for the content of these "clearing factor" components in their plasma.

Cardiac failure: Institute investigations in this field are concerned with factors which govern the distribution of important salts in the body, the way this distribution affects cell function, and the mechanisms by which the kidney regulates the volume of body fluids. In these studies it has been demonstrated that an increase in the activity of the adrenal glands is involved in the failure of the kidney to excrete salt, which leads to the edema or waterlogging of the tissues in patients with heart failure. A recent finding of considerable interest is that the abnormal secretions of the adrenal glands involved in heart failure are not under control of the pituitary gland, as might be presumed. This knowledge offers a new approach for further studies of the mechanisms implicated in cardiac failure.

Since it is possible that a deficiency of some chemical regulator of muscular contractility may be responsible in part for congestive heart failure, a class of

compounds which affect heart action is being studied. These compounds are bufotoxins, the hormone-like substances found in large amounts in several species of toads, which have a characteristic digitalis-like activity in restoring the contractile force of the failing heart. The synthesis of bufotoxins is of particular interest since their structure is not unlike that of digitalis itself. With the aid of radioactive isotopes, it has been shown that the bufotoxins of the toad are synthesized in the body from cholesterol, a substance which has been known for some time to be a precursor of other steroid hormones.

During the past year it has been demonstrated that there actually does exist in blood a compound having many chemical similarities to the cardiac active compounds of the bufotoxins. This compound has been demonstrated to possess an ability to modify contractility of heart muscle and to effect the distribution of salts across the cell membrane of cardiac muscle. This lead is being pushed strongly and could hopefully lead to dramatic end results both in more effective therapy and in a better understanding of the basic properties of heart muscle and its control.

Gerontology: Continuing research in this field is concerned with the appraisal of changes in biochemical, physiological, and psychological constants during aging. One significant change which has been observed during aging is the slowing of nerve impulse conduction along the ulnar nerve of individuals between the ages of 30 and 80. Although this reduction is not sufficient to entirely explain the slowing in psychomotor responses which has been observed with increasing age, it does indicate a trend of change which further experimentation may relate more closely to the aging process, particularly as regards psychomotor degeneration.

A study of considerable promise currently in progress is concerned with a technique for evaluating the effects of aging and hardening of the arteries on the blood-vessel walls. The method involves the capacity of the blood vessels to transmit an impulse applied externally, and the changes in such capacity which are brought about by age and arteriosclerosis.

Surgery: Among advances made in this field has been the development of a new tchnique for assessing the presence and extent of defects involving a communication between the right and left chambers of the heart. This advance provides the clinician with a much more sensitive tool for the diagnosis of certain congenital heart abnormalities.

Further studies on arterial grafting have been completed and have provided information which should increase the incidence of successful operations of this type.

An expanded surgical research program, aimed at improving surgical procedures for the correction and alleviation of disorders of the heart and blood vessels, has been recently instituted in the clinical center. It is hoped that potentialities in this field will be expanded to include defects not presently amenable to surgical correction.

COMMUNITY PROGRAM

As the individual is the patient of the physician or family doctor who can best help him, the community is, in a sense, the patient of public health resources. The community's health problems may comprise a grouping of needs which must have a grouping of resources to meet them.

How heart disease develops in a local community is such a grouping of needs. It is important for the whole national community to know how, where, when, in whom, and why heart disease develops; and many other things, such as what are the best techniques for finding it in early stages.

A study aimed at this very significant aspect of the total heart disease problem, and one of interest to every community, is under way at Framingham, Mass. There, in cooperation with the town's health department, physicians, State department of health, and State medical society, the National Heart Institute is studying this average community with the wholehearted support of several thousand of its citizens as volunteer participants.

Much knowledge of heart disease will be gained from studying this community over a period of time to find out how many people have it, what type they have, at what ages it develops, what factors seem to be associated with it, and other matters.

About two-thirds of the adults in this community between the ages of 30 and 60 have been given a thorough physical examination to determine whether or not they have arteriosclerotic or hypertensive heart disease. Persons in the study will be given followup examinations every 2 years to accumulate data on how heart disease develops.

This approach is expected to produce a number of significant results. It may provide definite information as to which factors or characteristics are present in people who develop heart disease. A byproduct of the study will be the accumulation of data on incidence and prevalance. A further result will be an appraisal of the value and efficiency of various methods and procedures for diagnosing heart disease.

In aiding research and its application, the Congress through the National Heart Institute provides complementary and supplementary Federal resources in a strong local, State, and National undertaking against heart disease. In principle and as administered, the National Heart Institute serves as a shoulder-to-shoulder partner with all others engaged in this concentration of effort.

Much has been achieved since the mobilization of forces against heart disease began, about 5 years ago; and private as well as public organizations are year by year growing stronger in knowledges, in skills, and in bringing to more and more people more and more of the benefits of advancing medical knowledge.

BUDGET REQUEST

Mr. BUSBEY. Dr. Watt, your request this year is for $14,570,000?

Dr. WATT. That is correct, sir.

Mr. BUSBEY. That represents a reduction of $598,000 from the appropriation for 1954?

Dr. WATT. Yes, sir; that is correct.

Mr. BUSBEY. What was your original request of the Bureau of the Budget?

Dr. WATT. Mr. Chairman, that was $15,210,000, which was the total amount requested of the Bureau of the Budget this year.

Mr. BUSBEY. That was approximately what you had for fiscal year 1954?

Dr. WATT. Yes, sir; it is approximately the same amount as we had this year.

Mr. BUSBEY. How was this $598,000 cut arrived at?

Dr. WATT. I think I can tell you about my part of it. I do not know all of the answers on that, but I know my own part in it.

We were attempting to arrive at a stable program for this year, and it was a question of trying to fit the needs of this program with the total economy at the present time, sir.

ALLOCATION OF BUDGET CEILING

Mr. BUSBEY. Mr. Kelly, was an overall figure given the Department and then did the Department allocate the money to the various constituents?

Is that the way it is done?

Mr. KELLY. That is the normal process, Mr. Chairman, and it started off that way this year, but there were subsequent adjustments made with respect to the Public Health Service, in that allocation, which occasioned the overall ceiling to be increased, with the consent of the Bureau of the Budget.

So that originally the ceiling allocated——

Mr. BUSBEY. Which ceiling are you speaking about? The overall ceiling, or the ceiling for the Public Health Service?

Mr. KELLY. The overall ceiling as allocated to the Public Health Service. Then, such allocation to Public Health was subsequently increased, which occasioned this figure of $15,210,000, being submitted to the Bureau of the Budget.

Mr. BUSBEY. What I am trying to arrive at is who made the determination in regard to the reduction? Was that made in the Department, or was this specific made reduction in the Bureau of the Budget?

Mr. KELLY. I would like to check that, Mr. Chairman, but I would say that this specific reduction at this point was made in the Bureau of the Budget.

Mr. BUSBEY. I think that is important. Before I get through with the hearings I want to explore in detail the facts concerning the allocation of the budget ceiling, because this committee and the Congress as a whole, has a very keen and sincere interest in the success of these research programs, and I just want to be sure that the Department heads did not make these cuts in the various institutes in order to avoid cuts which should have been made in some of the other constituents.

BUDGET ADJUSTMENTS IN DIFFERENT RESEARCH FIELDS

Mr. THOMAS. Mr. Chairman, in that regard, taking a quick look at page 13-1 of the Mental Health justifications, the amount under "Research projects" is $2,500,000 out of a total request of about $12,500,000. I presume that is about the only research they are doing—I mean, pure research—and they must have some applied research. When you turn over to Heart program you have research projects in the amount of $6.4 million out of $14.5 million. It might help your record for him to elucidate, particularly about the research projects for which there is a cut of $443,000. The other seems to be ancillary.

Then you have an increase under direct operations for research. I do not know what the difference may be, but there is an increase of $288,000 in applied research. In other words, they have taken off one and put on the other.

Dr. SHANNON. The total research in Heart is the sum of $6,400,000 and $3,276,000. The increase of $288,000 is attributable to the intramural research program activities related to the Clinical Center.

Mr. THOMAS. Is it for research, or is it for treatments?

Dr. SHANNON. Sir, this is for our intramural research as opposed to the $6.4 million for research grants.

Mr. THOMAS. In your budget you have research under "Direct operations" listed for $3,276,000. That is an increase of $288,000 and, then, for "Research projects" you have $6.4 million, which is a decrease of $443,000.

I wonder if one is for pure research, and the other for applied research?

Dr. SEBRELL. This $288,000, as Dr. Shannon says, and as this committee knows, is to get the clinical center opened, which has just been completed and is being activated, and the bulk of this money is for the operation of the clinical research in connection with the Clinical Research Center.

Mr. THOMAS. I just wanted to be sure the record was clear because from this table it might seem that you have taken off $443,000 for pure research, and added $288,000 of that to applied research.

Dr. SEBRELL. No; it does not divide pure and applied research. The research projects from which the $443,000 is being taken is the money that is given to applicants which may be applied to clinical or

any form of research in this field, whereas the others are direct-research operations.

Mr. THOMAS. Do you control the use of those funds, Doctor?

Dr. SEBRELL. Yes, sir, but it is done on a project basis, and those projects are very carefully reviewed.

Mr. THOMAS. Is it applied research, or pure research? Is any of it used in connection with treatment of patients, or is it all for research?

Dr. SEBRELL. Perhaps the words "applied research" means something different to you than it does to me. I gather from what you have just said that, when you speak of applied research, you are speaking of treatment of patients. Is that what you had in mind?

Mr. THOMAS. Yes, sir.

Dr. SEBRELL. This is not used for the treatment of patients, as such. You may use patients in a basic research project, but other clinical material may be necessary.

Mr. THOMAS. Excuse me, Mr. Chairman, for interrupting.

Mr. BUSBEY. That is all right. We never stand on formality in this committee.

GRANTS TO STATE AND LOCAL HEALTH DEPARTMENTS

On page 4 of your statement, Doctor, you state—

> grants help State and local health departments to employ and train staffs to find and refer heart disease cases to private physicians for diagnosis and treatment.

How many State health departments operate an actual detection or diagnostic clinic?

Dr. WATT. I do not know the precise number of those, Mr. Chairman; actually, this varies from State to State, as to whether they are actually engaged in a clinical operation, or whether they are doing it in other ways.

I can furnish the exact number on that, if you would like to have that information for the record, sir.

Mr. BUSBEY. I think it would be advisable to do that.

(The following was submitted in lieu of the precise data:)

> State health departments generally do not operate cardiac clinics for detection and diagnosis and treatment of heart disease. However, many do encourage and aid local health departments, hospitals, heart associations in the establishment and operation of such clinics. The State may assist with funds, personnel, equipment, or consultation services. Plans submitted to the Public Health Service by State health departments indicate that in fiscal year 1952 there were 150 clinics supported in part by State or Federal funds, in 37 States and Territories.

Dr. VAN SLYKE. Mr. Chairman, may I say that all of the States have heart detection activities, although they do not have heart detection clinics, as such, separately.

This service is provided within the general clinical setup by the health department.

Mr. BUSBEY. In other words, it is interwoven with the nursing services, and the medical and social service laboratory work, and other general public health services; is that right?

Dr. VAN SLYKE. That is right; and it is also connected with the detection of other conditions, such as diabetes and cancer.

Mr. BUSBEY. That being the situation wouldn't it be better if these grants were put under the appropriation of "Assistance to States, general," except for an amount for special projects?

Dr. WATT. Which grants now are you speaking of, Mr. Busbey?

Mr. BUSBEY. We have an appropriation entitled "Assistance to States, general." There has been some discussion when that was before the committee as to whether or not we should have these categorical grants, or whether they should be put under "Assistance to States, general."

Dr. WATT. You are speaking now of the grants to States that we have the $1,125,000 for in this year's budget?

Dr. SHANNON. Mr. Chairman, that matter is now under active consideration by the Department.

Mr. BUSBEY. There is some differences of opinion, I might say, in the committee as to what should be the proper procedure, and we are attempting to secure as much background and information on it as possible.

Dr. WATT. We have only had experience with the categorical type grants, Mr. Chairman. I do not know whether or not it would work, or how it would work, but at the present moment we are actually studying the results of that, and there is a bill, I believe, at the present moment, up for hearing, in which this would be the effect if the bill is passed.

Mr. HARLOW. It is my understanding that if passed it would take effect in the next fiscal year.

Mr. BUSBEY. Fiscal 1956?

Mr. HARLOW. Yes, sir.

PREVENTION OF RHEUMATIC FEVER

Mr. BUSBEY. Now, going over to page 6, in the second paragraph you state:

> Recommendations on the prevention of rheumatic fever have been widely disseminated as part of a national prevention campaign started in January 1953, in which the American Heart Association and the National Heart Institute, Public Health Service, are cooperating.

What does this cooperation consist of—just what does each contribute to the project?

Dr. WATT. The way this started, Mr. Chairman, the National Heart institute and the American Heart Association had a conference of experts from all over the country who are specialists in this field.

These individuals considered the research work which had gone on over the years, and the results of that research work, which indicated quite clearly that the new drugs—the antibiotics and sulfonamides—actually could prevent many effects of streptococcal infection. Efforts were directed against the streptococci, rather than against the effects of it, which is the rheumatic heart. By giving patients a direct treatment for streptococci we can prevent these effects.

Now, these individuals drew up a statement which gave, on the basis of evidence, the kinds of treatment which were recommended that could be expected to minimize the effect of streptoccocal infection. When that was done, the officials of the Heart Association and of the National Heart Insititute sat down and decided "Well, now, how can we best get this into the hands of the various individuals?" The first thing was to get this statement formally prepared, and then, between us, we decided on the best forms of dissemination, as to how it should be done.

I believe the first actual distribution was through some of the major medical journals.

We spoke to the editorial staffs and we spoke to the various people there and got the publicity released. I suppose that would be the word to call it, but actually it was information released to the physicians as to just how this treatment should be carried out in the opinion of those who had studied all of the research returns and formulated opinions as to what could be expected.

What was done was really done through the professional journals first, and as soon as it got out to the professional journals, we then proceeded to get that picked up and reprinted, I suppose you would call it, information that would get to people who had rheumatic heart disease, or who might be expected to have it.

The way that was presented, of course, was somewhat different from information that went to the physicians.

In this case, it was directed toward the consumers of this material, and told them what could be expected by this type of intensive care, and asked them to get in touch with their physicians, or told them of the places where they could get information of this sort.

The second step, as I said, went into that type of public relations.

The third step on that has been through the various heart associations themselves, and through the State health departments.

Now, here we come into the operation where people living in the vicinity of the heart association receive the information through its executive secretary, and the physicians who belong to it in the various communities around the country, began, I suppose you might say, to beat the tom-toms, or at least getting the people aware of this opportunity to do something about this disease.

The kind of cooperation which we had, to come back to your original question, is that the various staff people in the two associations who are responsible for actually communicating this information down the line, saw to it that they were talking the same language, understanding each other as to the objectives.

RESEARCH ACCOMPLISHMENTS DURING PAST YEAR

Mr. BUSBEY. What has been accomplished during the past year, and what progress has been made in your research program since you were up here last year in behalf of your annual appropriation?

Dr. VAN SLYKE. Mr. Chairman, may I have the opportunity to speak a word of comment upon this prophylaxis program which we have been talking about?

Mr. BUSBEY. Yes, sir.

RHEUMATIC FEVER

Dr. VAN SLYKE. I know the committee has previously been advised in regard to this, but it might be well to mention it again.

Rheumatic fever is caused by a streptococcal infection, and it is only the repeated attacks of rheumatic fever that lead to rheumatic heart disease. With penicillin which Dr. Watt has been talking about, and the antibiotics, you can step in and treat a rheumatic fever infection, and cause it to disappear, which means, Mr. Chairman, that the patient does not then develop rheumatic heart disease, or a streptococcal infection, and thus, rheumatic heart disease.

Every time they get a streptococcal infection or a suspected streptococcal infection, they definitely at that time, if they have already had rheumatic fever, take prophylaxis as the continuing, everyday thing, as you and I put salt on our food each day.

This means they do not receive a second attack, and expose themselves to the very definite possibility of getting rheumatic heart disease.

Mr. Chairman, I offer this statement again at this time, because I think that this is one of the most important accomplishments of the joint efforts of the Federal Government and the Heart Associations in this country to bring this knowledge to bear on the patients in their own homes.

Mr. BUSBEY. Do you desire to comment upon the progress which has been made during the past year? You may do that, or Dr. Van Slyke, or Dr. Shannon, or anyone else who desires to speak on it can do so.

Dr. WATT. Fine. Thank you, sir.

We have prepared and submitted for the record a statement which sets forth progress which has been made.

Mr. BUSBEY. Yes; that is already in the record, but will you briefly refer to the progress which has been made, sir?

ADVANCE IN COMBATING ABNORMAL BLOOD PRESSURE

Dr. WATT. One of the things that we are most interested in at Bethesda during this past year has been the progress on a new drug, which I think may have been mentioned last year, but on which we have made significant progress.

Some time ago the laboratory at Bethesda—the Chemistry of Natural Products Laboratory of the National Heart Institute—began as a systematic study a study of agents which could be used in combating hypertension, which is high blood pressure, and which field is one of the places where a great deal of success has been demonstrated during this past year.

We have had a whole group of drugs reopened for study, which would have an effect upon the blood pressure in man.

Our scientists began to make a study of plants, and we started off by looking through the literature as to what plants were toxic, and had symptoms that seemed to indicate an effect upon the blood pressure in man.

One of the best leads appeared to be in the rhododendron family. I think most of you are familiar with the plant, which is the common rhododendron found in the mountains around here.

This plant had a history of being poisonous, and in fact, back in Greek history in Xenophon's time, a whole brigade of Greek soldiers was poisoned by honey made from the flower. These leaves, when ground up, were made into a crude extract which looks like tar, and is a very, very potent material, but it is toxic to man. It is too toxic to give man, and the margin of safety is very small; it kills people almost at the same time as it lowers their blood pressure, but by purifying it and by working on it we find that a pure, crystalline powder can be made, which is an extraordinarily potent material for use in hypertensive cases.

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Ten micrograms, which is one-thousandth of a milligram—it is one-thousandth of a gram—will lower blood pressure in animals by as much as 30 to 40 percent.

This is an extraordinarily potent extract, and 1 ounce of it—I find it hard to put it in words, as to just how powerful it is—at any rate, that particular drug has now been studied, and its site of action has been determined fairly well, and we are well along toward determining the actual site—I mean, the actual chemical structure of the material—and are now ready to begin to test this, though cautiously, in people who have high blood pressure.

It is, undoubtedly, going to be useful as a drug, if for no other reason than helping us to determine something about the causes, and background of blood pressure, since we have a tool to work with.

Whether it will be actually, itself, be a drug for use in patients, we do not know at the present time.

The most exciting agents in the field of high blood pressure are the rauwolfia serpentina drug. This is an old Indian remedy which was used in India for psychopathic patients, actually. It is also sort of a quack type thing, with some people advertising it for use for everything.

However, for many years it was part of the pharmacology in this country, but sort of fell into disrepute. Apparently the reason is the length of time it takes for the drug to act. You can give it to a patient, and although it will have some effect, it takes a matter of 7 days to 21 days before the full effect of this drug in the patient begins to take place.

Mr. BUSBEY. Does that go directly into the blood stream?

Dr. WATT. It is taken by mouth—at least, one group is—but now it is also given by both injection and by mouth.

This particular drug is absorbed, and acts, largely, on the central nervous system. It has an effect on the nervous system as well as having its effect on lowering the blood pressure.

When you use it in conjunction with another drug, which is a blocking agent used to block the effect on the nervous system, or one portion of the nervous system, we have achieved some very striking results in benefiting people with high blood pressure.

The items which we have been particularly interested in, that is, aids to hypertension, and in which there has been an exciting development this year, is in the field of athero-sclerosis, and all of the many complications which occur as a result of this condition.

ATHERO-SCLEROSIS

I suppose there are probably more people who suffer from one form of athero-sclerosis or another, as practically any other disease. By the time you get up to the age I am, it is practically universal. I think, in fact, as one pathologist has said, you can find athero-sclerosis in children as young as 4 to 5 years of age. This is done by the use of a special dye. You can look into the aorta, and you can see in the aorta these lesions at a very early age. This was done in connection with the coroner's office in New Orleans, where we received patients who were killed through violence, and by this special staining technique we can actually see the beginning of these lesions.

EARLY DETECTION OF HEART DISORDERS

Mr. BUSBEY. The thing that is always in my mind is how much more difficult it must be to detect heart disease in advance, as compared to the detection of cancer. The cancer people tell us that they could cure a high percentage of the cancer cases, if they could detect them in time.

Dr. WATT. That is right.

Mr. BUSBEY. The big job is to detect them in time.

If we could detect cancer cases in time, our progress would be much more rapid, but it seems to me that it must be extremely more difficult to detect the various kinds of heart diseases in time. What has been done to develop techniques which would make it possible to determine that a person has a disorder which, if let go, would lead to some kind of heart attack at a future date?

Dr. WATT. I think the studies which we are carrying on at Bethesda and also through the grants, are going to be the important contribution in that field, in learning what produces these lesions. If we can determine what produces the lesions, it will not be necessary to worry about detection. Then, we will be able to prevent them, and this is the real crucial factor. Once the lesion is in there, even if you detect it, unless you have some way to remove it, you are not getting very far.

The cancer is a localized growth, and if you find it, you can remove it, if you find it early enough. However, if you find a lesion early in a blood vessel, you cannot take that blood vessel out unless it is accessible.

One of the amazing things in the aorta is the big blood vessel down in the stomach. There is a form of disease which tends to occlude. The first operation we had at the Clinical Center, and it is part of the research program of the Heart Institute, was to take out a piece of aorta about this long, and substitute a frozen aorta that had been taken from another patient, and we placed it in there and that particular patient, with this occlusive disease, has recovered, and is back on her feet now, and getting along fine.

However, before that, she had no circulation in her leg, and it was beginning to set up gangrene. In fact, her big toe was already gangrenous when she came in.

STUDIES IN BLOOD CHEMISTRY

Dr. SHANNON. Mr. Chairman, I should like to interrupt to say that I agree that your question was very well placed, and I think that Dr. Watt has gone one step beyond your question.

Dr. Watt and his group in the Heart Institute are conducting studies on the chemistry of the blood.

You will recall that we spoke to this committee before about certain blood factors such as the fat-protein molecules. We do not say that these molecules are the cause of this type of hardening of the arteries, but they appear to be coincidental with it, at least. So, they can be used as an indicator.

There is a tremendous amount of work going on in this country now to check on the relationship of this type of chemistry of the blood, to determine if it has any relation to the development of heart disease, and I think, Mr. Chairman, what you are aiming at in your question

is, are we going to get something which will give us an earlier lead on time in the treatment of the disease; which would put us in a position to do something about it.

Dr. WATT. Would you like me to go ahead, Mr. Busbey, on this matter?

Mr. BUSBEY. Yes; if you will, please.

PROGRESS IN STUDIES OF CONGESTIVE HEART FAILURE

Dr. WATT. Another field in which there has been definite progress during the past year is in the field of heart failure. This is a term that the doctors have used for a long time, and which they speak of as congestive heart failure. An indication of that is the veins of the neck. You can see them, and the veins of the neck are swollen, and the patient's blood does not circulate properly, and there is a pooling of the blood in the veins, and the heart gradually fails.

This congestive heart failure causes the result of a lot of damage to the heart. That type of damage could bring the heart to the point of being unable to do its work, and could bring on failure.

One of the things, though, that we have been concerned with is that a perfectly good heart—at least, good in terms of any appearance after death, has been unable to do the job, and there seemed to be a lot of different clues as to what might have happened there.

EFFECT OF DIET

The study of sodium and the various chemicals that are involved in it have lead to an understanding of the mechanisms involved so that now we are quite certain that some glands of internal secretion—the glands that make the hormones in the body—are responsible for a great deal of this, and by modifying the effect of these hormones, we can actually prolong the life of the individual comfortably and effectively.

This takes us into the field of ways of getting rid of the excess fluid that accumulates, and into a study of diets, and into a study of the ingredients of the diet.

I think in previous years Dr. Van Slyke has spoken of the low sodium diet and many of the factors involved.

One of the things that has happened just this past year is the realization that in many water supplies in the country that there is enough sodium to seriously affect the chemical content of a diet just by people normally drinking that water. This is not true of all places, but you know of some areas where they speak of "very hard water" and that is water which has a high alkaline content. However, some of these areas may have enough sodium in them to seriously upset the calculations that you were going into in creating a low-sodium diet.

This is something, incidentally, where I think something effective can be done in finding out those areas that have this high sodium content, and to be able to warn physicians so that the patients do not inadvertently get more sodium than they need.

TEACHING GRANTS

Mr. BUSBEY. Doctor, referring to page 4 of the justifications, I notice in 1954 the estimate for teaching grants is $2,628,000.

Dr. WATT. That is right, sir.

Mr. BUSBEY. It seems to me that that is absolutely contrary to the committee's expressed opinion that nonresearch activities be reduced. I have just asked the clerk to get out the language of our report for fiscal year 1954. On page 13 under the National Institutes of Health, the committee says, and I quote:

> The committee in general agrees with the Bureau of the Budget and the Department in their contention, in revising the budget, that greater emphasis should be placed on research activities and less on the related activities, especially grants to States for detection, diagnosis and other similar control activities.

Dr. VAN SLYKE. Mr. Chairman, may I speak to that?

Mr. BUSBEY. I would like someone to enlighten the committee on that.

Dr. VAN SLYKE. Mr. Chairman, if I may, I would like to comment that this matter was brought up the other day in connection with the cancer program, and I think Mr. Harlow at that time pointed out that subsequently there was a significant increase in these funds by the Senate Appropriations Subcommittee, and concurred in later in the conference report.

The additional funds added by the Senate were for research and training. I do not have my figures with me today, but in terms of the total budget, there was no significant increase in this area.

Mr. BUSBEY. These are teaching grants; are they not?

Dr. VAN SLYKE. Yes, sir; under the training program.

Mr. BUSBEY. Well, of course, the more money you put into these teaching grants, the less you are going to put into research, and I feel, as Mr. Thomas expressed a while ago, that we want to see this research go forward. Not only are we sympathetic with it but I think it is extremely important that the emphasis be put on the research activities.

Dr. VAN SLYKE. Mr. Chairman, I would agree.

Mr. BUSBEY. That does not only refer to the Heart Institute, but all of the institutes.

Dr. VAN SLYKE. Surely, and we agree with the committee on that, Mr. Chairman, and we appreciate the support that this committee has given us in the past, but we have last year, as you recall, stepped up our research grant program from $4,927,000 to $6,843,000. There was a very significant increase in these research grant funds.

On the other hand, the training grant program was stepped up so as to provide better cardiovascular teaching in the medical schools in order that the developments of research could be applied as soon as possible to the patient which, after all, is the end result.

Mr. BUSBEY. However, the teaching grants have practically doubled from fiscal year 1953 to fiscal year 1954.

Dr. VAN SLYKE. Yes, sir; that is right, Mr. Chairman, and the reason for that is that in 1953 it was not possible to support more than a few of the medical schools with this grant, and in 1954, for the first time, we were able to give all the medical schools comparable treatment, under this program.

NUMBER WHO HAVE RECEIVED TRAINING STIPENDS

Mr. BUSBEY. How many doctors have received training stipends since this program started?

Dr. VAN SLYKE. I do not have the figures with me, but with your permission, Mr. Chairman, I should like to introduce them into the record, but I would say, roughly, 275 since the program started in fiscal 1948.

PROPORTION REMAINING IN PUBLIC SERVICE

Mr. BUSBEY. Will you furnish the same data as was requested in connection with the mental health program, that is, how many are engaged in research work now, how many are in other public service, and how many are in private practice?

Dr. VAN SLYKE. Yes, sir. We have all of that data, and would be very happy to supply it for the record.

The figure is about 80 percent, as I recall, that remain in public service.

(The matter referred to is as follows:)

As of April 28, 1954, 311 doctors have received training stipend awards.

As of October 20, 1953, 76 replies to followup of physicians who had completed training indicated that 15 (19.6 percent) were engaged in full-time private practice only. Of the remaining 61, 14 are on active duty with the Public Health Service and Armed Forces Medical Corps, in activities utilizing their specialized training; 46 are associated with medical schools, universities, and hospitals in teaching and research, either part or full time; 1 physician is employed by a life-insurance company while carrying on a part-time practice.

REHABILITATION ACTIVITIES

Mr. BUSBEY. On page 12 you speak of "cardiac rehabilitation." What rehabilitation activities are carried on in that field?

Dr. WATT. By the Public Health Service, or by the Heart Institute?

Mr. BUSBEY. By the Heart Institute, or the Public Health Service.

LOS ANGELES PROJECT

Dr. WATT. I think you are referring, Mr. Chairman, to what is carried on in Los Angeles, Calif.

Mr. BUSBEY. Yes; that is the specific project mentioned.

Dr. WATT. There is an endeavor to find out what kinds of activities and how much energy is required, and what type of work a man can do in given jobs.

This is being done at the Lockheed plant in Los Angeles, and the place where we have our studies set up is at the Cedars of Lebanon Hospital there.

Mr. BUSBEY. Is the Institute carrying that on?

Dr. WATT. Yes, sir.

Mr. BUSBEY. Is that a special project of your own, or are you carrying that in connection with some other organization out there?

Dr. WATT. Well, we are seated physically in this particular hospital, and the work is being done in cooperation with the Lockheed people, of course.

Mr. BUSBEY. The California State Health Service is not involved?

Dr. WATT. They are aware of it; yes, sir; and are taking a direct interest in it, I suppose, is the best way to put it. However, this particular project is being carried on by the Public Health Service.

The State of California is actually carrying on some studies on their own.

OTHER WORK IN REHABILITATION

Mr. BUSBEY. What other rehabilitation work is the Institute carrying on?

Dr. WATT. There is training in rehabilitation of cardiacs which we are supporting through the Institute which has direct responsibility for that.

As you know, the Institute of Neurological Diseases and Blindness has the focal responsibility for that, and of seeing to it that it is all done without people getting in the way of each other. We are supporting through them the training of people in rehabilitation to the extent of about $200,000.

ACTIVITIES AT BALTIMORE CITY HOSPITAL

Dr. VAN SLYKE. Mr. Chairman, I should like to comment, also, that at our Gerontology Unit—that part of the Heart Institute which has research activities at the Baltimore City Hospital—we have available to us, without any cost, a large group of hospitalized people, and we are doing some of these rehabilitation studies there, particularly in terms of the cardiac reserve.

That is probably a medical term, and I will explain it:

If a normal person can do 100 units of work per hour, we will say, and a person with a bad heart can do 30, 40, 50, or 60, it is awfully important to determine how many units a particular patient can do, because if his level is 50 units of work per hour, and you only work him at 40 units per hour, which is a cruising range, he can go on for years and years, providing you do not overtax him.

However, if his unit rate is 50 per hour and you try to get him to do 52 units of work per hour, he is going to go pretty quickly into heart failure, and it is that serious.

The methods we use to determine this are rather complex. At least, they vary. One of the methods is to put a huge paper sack over a man's mouth and have him breathe—take in outside air, and breathe expired air into the bag—and by chemical analysis of this you can determine his capacity, and by this method which we call indirect calorimetry you can tell how much work the man has done in that period of time, and how much work it takes for him to raise a hand or to walk.

Another way in which we do it is to put the man on a treadmill—an inclined treadmill—where he puts out a constant rate of work, and another way to do it is to put him on a bicycle and have him pump against the pressure, and measure the output electrically.

So, we are getting closer and closer to the means whereby you can find out just how much work a given job requires, and with that and the work classification unit which the Heart Association and the Public Health Service have set up around the country, we are getting closer and closer to the point, Mr. Chairman and members of the committee, where we can get the tools and things to work with so we can more intelligently advise the patients.

It does not mean very much when you say "take it easy," or "change your job." It does not help very much. You have to say "In this

kind of a job you have to use so much energy, and in your case that would be all right, or it would not be all right."

So, I think this is a very logical approach to a very difficult problem.

Dr. SHANNON. I think the important thing to be appreciated here is that while the research technique at the present time is very complex, what is being attempted is to define certain simple procedures which generally will be available to the practicing physician who can make his assessment of an individual's difficulty without highly complex operations.

While Dr. Van Slyke spoke of treadmills, it is not probable that a doctor will ever have a treadmill in his office, but when one puts a man under stress of known extent, and studies of such simple things as the change in respiration rate, and its return to normal, and the change in heart rate, and its rate of return to normal, at different work levels, one then develops a series of criteria and indexes which will permit the designation of an individual and his work capacity with a fair amount of precision by very simple means.

The net end result is to find the simple indexes that will give support to the general practitioner, and while we do not have them yet, I think progress is being made, and we most certainly will ultimately be able to do so.

I will not put a time on it, but it will be done.

I would like to comment a little further upon where we are in heart research today.

The individual who is going to get in cardiac difficulty in the future, or who has some doubt about his condition, is probably more fortunate than if he were to have any one of many other chronic diseases. You have noticed Dr. Watt, in making his presentation today, discussed the therapeutic means to fit this or that, and the possibility of nutritional aids to handle atherosclerosis in the cardiac field.

Our objectives in the cardiovascular field are clearly identified so that now we are talking about medicinals that are highly active and about dietary regimens that are beneficial. We are talking about trying to find out the extent of the disease, so we can limit a man's activity so he can handle himself. In cancer, on the other hand, it has been stated some 2 weeks ago that we do not know the cause of it, and that we do not have treatments that will have a high degree of effectiveness, except early surgery.

The situation is quite different from the heart program. With the proper program, I think that we can expect, in this area, the elimination of rheumatic fever, the reduction of high blood pressure, and therefore the lack of heart failure, as a result of hypertensive heart disease, and finally, the possibility is being held up for early diagnosis of arteriosclerosis, and perhaps nutritional treatment of arteriosclerosis. We are progressing in rehabilitation, which really is not rehabilitation in the ordinary sense, but is a diagnosis of a disease, and the determination of its extent, and the determination of the residue, or function remaining, accompanied by sound counseling. I think the picture in the heart field is so strikingly different from any of the other fields that it warranted that comment.

RELATIVE RESEARCH ADVANCE IN DIFFERENT DISEASES

Mr. THOMAS. That is very interesting. What you are saying is that you have made more progress in basic research on heart disease than you have in cancer or mental disease?

Dr. SHANNON. We are further along; yes, sir.

Mr. THOMAS. Which field is now No. 2 to heart disease?

Dr. SHANNON. I would say arthritis, and other metabolic diseases.

Mr. THOMAS. I am now speaking to the three fields of heart, mental, and cancer diseases.

Dr. SHANNON. I think that cancer is No. 2, and mental disease No. 3.

COOPERATION WITH VOCATIONAL REHABILITATION

Mr. BUSBEY. Dr. Shannon, you said something in regard to this rehabilitation being a little different from rehabilitation as the average layman thinks of it, which leads me to the next question. Do you have any cooperative projects with the Office of Vocational Rehabilitation?

REHABILITATION TRAINING GRANTS

Dr. SHANNON. At the present time all we are doing is supporting a certain number of training grants to permit the people to acquire training in the field of rehabilitation. When you take the cardiovascular system as a whole, of course, we are deeply interested in rehabilitation in the very true sense, because arteriosclerosis and hypertension are the primary causes of the vascular diseases in the central nervous system, and the so-called strokes, with serious paralysis of an arm or in a whole half of an individual's body. There reeducation of what is left starts very early in order to get the individual over that, and back to gainful employment.

If you take the more restrictive area, that is, heart disease, as such, proper diagnosis, the proper use of the best therapeutic tools available, and proper evaluation of what the man can do to improve his heart, and job counseling are all important.

It is not that we can fundamentally improve the function of the heart through training, but we can match the job to the individual's capacity. So, cardiac rehabilitation is in that sense not any different from the other types, such as in the arthritic field, or the field of cerebrovascular thrombosis, and so forth.

Mr. BUSBEY. How much in funds do you give to the OVR in this training program?

Dr. WATT. None to the OVR.

Dr. VAN SLYKE. None directly to the OVR, Mr. Chairman, but by providing training grants for these leaders in the field of rehabilitation, we are putting in almost $200,000 a year.

Mr. BUSBEY. What leaders does that include?

Dr. VAN SLYKE. These are people, Mr. Chairman, who then will be able to go out in the field and head up rehabilitation clinics; as has been reported to this committee previously, there is an extremely great shortage of people competent and trained to be leaders in rehabilitation.

It is all right to say "Yes, rehabilitation will pay off," and we truly believe that it does, but it takes people with experinece and ability to head these programs.

Mr. BUSBEY. Who are these people who receive this training?

Dr. VAN SLYKE. They are doctors who have had a background in general medicine in one field or another, and then they take the course of a year or two to permit them to become competent in this area.

You have to have a good medical background before you can be a good rehabilitation chief.

Mr. BUSBEY. Are any of the training grants made to people on educational leave from State vocational rehabilitation divisions?

Dr. VAN SLYKE. No, sir.

Mr. BUSBEY. That is, people who may also be receiving funds from State grants made by the Office of Vocational Rehabilitation?

Dr. VAN SLYKE. No, sir; not a penny, sir. This is used to pick out doctors and train them in the medical area of the field of rehabilitation.

Mr. BUSBEY. I think that is all.

Mr. Thomas, do you have any questions?

Mr. THOMAS. No questions.

Mr. BUSBEY. Mr. Fernandez?

Mr. FERNANDEZ. I notice that the large cuts are in the grant items. Research grants are cut in the amount of $443,000; grants for research fellowships, $130,000; and teaching of medical subjects, $266,000.

Is this the result of an effort to reduce the expenditures solely, or is there any other reason for these cuts?

Mr. BUSBEY. I might say to the gentleman from New Mexico that I explored that very same thing a little before you came in.

Mr. FERNANDEZ. I am sorry, Mr. Chairman, but I was a little late I have just gotten in from Santa Fe on the train this morning, and I probably missed your question. I will not go into it very extensively. I just want a simple, short answer.

Those three cuts are the only substantial cuts in this particular. item?

Dr. Watt. Yes, sir.

Mr. FERNANDEZ. That is all, Mr. Chairman.

Mr. BUSBEY. If there are no further questions, this will complete the presentation of the justifications for the National Heart Institute.

We thank you very much, gentlemen.

(The matter referred to is as follows:)

REPLIES BY DR. JAMES WATT TO QUESTIONS SUBSEQUENTLY SUBMITTED BY CONGRESSMAN FOGARTY

1. Q. What was the Truman budget estimate for fiscal year 1954?
A. $16,500,000.
2. Q. What was the revised Eisenhower budget for fiscal year 1954?
A. $11,040,000.
3. Q. How much did the House of Representatives provide in its bill for fiscal year 1954?
A. $12,000,000.
4. Q. How much did the Senate provide for fiscal year 1954?
A. $15,418,000.
5. Q. How much did the appropriations law provide for fiscal year 1954?
A. $15,168,000.
6. Q. How much do you now request for fiscal year 1955?
A. $14,570,000.
7. Q. Heart disease has long been known as the No. 1 killer, the leading cause of death among Americans. Does it still stand in that position and are half or more of the deaths in this country due to what is known as heart disease?
A. Yes, sir.

8. Q. As I look at this budget for the Heart Institute for fiscal year 1955 I see that extramural research grants have been cut, research fellowships have been cut, and teaching grants have been cut. If over 750,000 people are dying of heart disease each year shouldn't those items be increased rather than cut if you look at the problem from a medical point of view?

A. From a medical point of view the answer is "Yes."

9. Q. Do you consider Dr. Paul White of Boston and Dr. T. Duckett Jones of New York competent in the heart field and responsible members of the medical profession?

A. Yes, sir.

10. A. Last year Dr. White and Dr. Jones testified to the need for $26.1 million for the Heart Institute and yet your budget today calls for only $14.57 million. That is a difference of $11.5 million. Do you think they were wrong in their analysis of the need or do you feel that they were right and the budget should be higher?

A. The field of cardiovascular research and training needs support, at least in the amount given by Dr. White and Dr. Jones.

11. Q. Are you familiar with the results of the survey on research construction needs requested by Senator Thye as they affect the field of heart disease?

A. Yes, sir.

12. Q. That survey showed in the heart field, I am told, that 74 institutions requested about $29 million on top of 19 other institutions which had previously asked for about $10 million, making a total need for $39 million for this type of construction. I notice that this budget provides nothing for construction. In the light of the survey and in the light of your knowledge of heart disease research, do you think we are impeding progress in research when we fail to meet this construction need and do you think if funds were provided for construction that progress in research would be accelerated?

A. The productivity of trained research manpower is always impeded to the extent that the facilities for research work are inadequate. This certainly applies to the heart research field. Funds for research construction should come from many sources. If the Federal Government should assume a share of the load, facts gathered in relation to earlier research construction grants show that the Federal grants are a strong stimulus to voluntary giving to local campaigns.

MONDAY, APRIL 26, 1954.

DENTAL HEALTH ACTIVITIES

WITNESSES

DR. JOHN W. KNUTSON, ASSISTANT SURGEON GENERAL, CHIEF DENTAL OFFICER

DR. FRANCIS A. ARNOLD, JR., DIRECTOR, NATIONAL INSTITUTE OF DENTAL RESEARCH

DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH

DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH

JAMES F. KELLY, BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$1,650,000	$1,740,000	$1,730,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		875	
Adjusted appropriation or estimate	1,650,000	1,740,875	1,730,000
Unobligated balance, estimated savings	−54,838		
Obligations incurred	1,595,162	1,740,875	1,730,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants:			
(a) Grants for research and training:			
(1) Research projects	$220,053	$221,000	$221,000
(2) Research fellowships	48,171	50,000	50,000
2. Direct operations:			
(a) Research	357,440	573,875	620,000
(b) Other direct operations:			
(1) Review and approval of research and training grants	9,139	11,000	11,000
(2) Technical assistance to States	788,139	706,000	660,000
(3) Coordination and development of dental resources	121,722	112,000	100,000
(4) Administration	50,498	67,000	68,000
Obligations incurred	1,595,162	1,740,875	1,730,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	196	189	189
Full-time equivalent of all other positions	5	5	5
Average number of all employees	175	179	179
Average salaries and grades:			
General schedule grades:			
Average salary	$4,354	$4,480	$4,417
Average grade	GS-6.2	GS-6.2	GS-6.1
01 Personal services:			
Permanent positions	$940,200	$1,000,560	$987,360
Other positions	11,801	23,100	23,100
Regular pay in excess of 52-week base	1,815	1,909	1,834
Payment above basic rates	2,574	2,300	1,500
Total personal services	956,390	1,027,869	1,013,794
02 Travel	95,338	85,025	71,275
03 Transportation of things	35,137	23,750	21,850
04 Communication services	5,183	6,875	7,025
05 Rents and utility services	3,216	650	650
06 Printing and reproduction	6,532	7,800	6,800
07 Other contractual services	35,024	29,140	25,140
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	81,049	157,100	193,100
08 Supplies and materials	72,619	103,200	101,100
09 Equipment	37,801	29,600	19,400
11 Grants, subsidies, and contributions	268,224	271,000	271,000
13 Refunds, awards, and indemnities	120		
15 Taxes and assessments	1,813	2,150	2,150
Subtotal	1,598,446	1,744,159	1,733,284
Deduct charges for quarters and subsistence	3,284	3,284	3,284
Obligations incurred	1,595,162	1,740,875	1,730,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$240,767	$136,999	$152,874
Obligations incurred during the year	1,595,162	1,740,875	1,730,000
	1,835,929	1,877,874	1,882,874
Deduct:			
Adjustment in obligations of prior years	78,032		
Obligated balance carried to certified claims account	140		
Unliquidated obligations, end of year	136,999	152,874	147,874
Total expenditures	1,620,758	1,725,000	1,735,000
Expenditures are distributed as follows:			
Out of current authorizations	1,458,925	1,594,500	1,584,000
Out of prior authorizations	161,833	130,500	151,000

Mr. BUSBEY. The next appropriation request is for dental health activities. At this point in the record we will insert Dr. Arnold's prepared statement regarding this request.

(The statement referred to is as follows:)

GENERAL STATEMENT

Mr. Chairman and members of the committee, the major dental problem of the Nation is dental caries, or tooth decay. More than 90 percent of children, by the time they reach school age, have one or more decayed teeth. At age 15, over 95 percent have decayed permanent teeth, and the average child has lost 2 teeth due to lack of treatment. The average adult will have lost half his teeth by the time he reaches 40.

Also extremely prevalent are diseases of the supporting tissues, or periodontal disease, of which pyorrhea is a major form. Signs of periodontal disease are present in one-third of our 30-year-olds. The prevalence increases with age, so that 85 percent of our population are ultimately afflicted with this baffling condition—the major cause of tooth loss in adults.

Malocclusion, or the incorrect relation of teeth or jaws to each other, is a serious problem in at least 1 out of 10 of our children. Harelip and cleft palate is a congenital affliction that occurs once in every 800 live births. Oral cancer, though less prevalent than the other dental problems mentioned, comprises 15 percent of cancers in males. This presents an important responsibility to the dentist, who is often the first to observe the disease. Other problems include the adverse effects of dental disorders upon general health.

Last year the American people spent over $1 billion for dental care. The Federal Government is also expending appreciable sums in this area. During fiscal year 1953, more than $100 million was spent to provide dental services for the Armed Forces, veterans, and other direct Federal beneficiaries. It should be pointed out that these expenditures offer no promise of a permanent solution to the Nation's dental problems. Moreover, adequate dental services, despite these measures, reach less than a third of the American people.

In addition to the cost of dental services, there are serious related considerations. These include the problem of dental manpower, the financial plight of dental schools, and the loss of wages and productivity as a result of recurring attacks of dental disease.

Obviously, the logical approach to the dental problem—the only practical, long-range approach—is through research and the development of preventive and control procedures. Meanwhile, the application of present control measures must go forward, and existing manpower and services must be utilized to the best advantage.

DENTAL RESEARCH

One of the three broad areas of dental activity in the Public Health Service is dental research. This program is concentrated largely in the National Institute of Dental Research, and includes the conduct and support of fundamental investigation into the causes and prevention of dental problems. With the establishment of the Institute by act of Congress in 1948, an important step was taken toward dental research at the basic science level, in contrast with traditional studies in dental technique alone. The results have contributed significantly to the knowledge of underlying factors in dental health and disease.

The National Institute of Dental Research conducts a grants program to help finance basic research in dental schools and other non-Federal institutions. For the past 5 years, the annual appropriation has remained at the same level—$221,000. With this sum we help support annually about 24 active research projects. By the very nature of the diseases under study, most of these projects are long-term, and only a few new ones can be started each year.

Although the grants program is relatively new, important results have been reported. For example, in one project at the dental school of the Medical College of Virginia, research scientists studying prenatal influence in the production of malformed teeth and jaws have found an interesting clue to this problem. They have shown that artificial fever induced in pregnant rats causes comparable malformations in the mother and offspring. This finding suggests the importance of controlling febrile conditions in humans during the early years of life.

At Yale University one of our research grants has supported studies on the transplantation of embryonic tooth germs into the eyes of experimental animals,

where their further development can be directly observed. In this project it was found that a cancer-inducing agent, methylcholanthrene, changed the microscopic appearance of the tooth-germ transplants to resemble that of malignant tumors. In addition, a suppressive effect of fluorine upon certain malignant aspects of tumor implants was observed.

Researchers at the University of Illinois, in another grant-supported study, have shown that the general health of individuals is reflected in the tissues of the mouth. The results so far suggest that certain changes in the oral tissues may serve as a guide to early recognition and diagnosis of systemic disease.

The foregoing are examples of accomplishments in a phase of our dental program that presents a constant dilemma to the National Advisory Dental Research Council. In recommending grants for approval of the Surgeon General, the council must choose between projects likely to produce immediate results and those that tend to maximize the dental research potential of the Nation. The latter objective accords more closely with the spirit of the Dental Research Act of 1948.

Another technique by which the Dental Institute approaches its research objectives is the awarding of fellowships to promising young scientists. This program has been in operation since the establishment of the Institute, and is conducted in a similar manner to the fellowship programs of the other National Institutes of Health.

For the past 5 years, the annual appropriation for this program has remained unchanged. It annually supports 10 to 11 fellows, who are given training and experience in various fields. Because a promising candidate must often be supported for 3 to 4 years before he is fully qualified to enter a career of research or teaching, we are able to add at the most 5 or 6 new candidates each year. As pointed out to this committee last year, the serious shortage of trained researchers presents a great obstacle to progress in dental research.

One of the major goals we hope to achieve by the research grants and fellowships program is to foster research awareness in the dental profession. Dental school staffs experienced in research through these programs are in excellent position to pass the benefit of scientific knowledge rapidly to the public through their relationship with the dental student. To date, 95 percent of those who have received fellowship funds are pursuing careers in research or teaching, and are thus exerting a beneficial influence on dental practice.

Direct research operations of the Public Health Service, particularly the laboratory phases, are still concerned largely with dental caries and its prevention by the several uses of fluorine. Our water fluoridation studies at Grand Rapids, Mich., and in suburban Washington are being continued. The result of these and similar projects have demonstrated that dental caries can be drastically reduced in children by means of a fluoridated water supply. Another part of this work, however, is now reaching the point of evaluation. From data obtained in the past year or so, it appears that older persons, up to and including adult age, may also be gaining considerable benefit from the fluoridated water. This interesting development should be thoroughly investigated.

Although water fluoridation has a great potential impact on the dental problem, there remains a large rural population that cannot now gain its benefits. One of the methods suggested for making fluorides available to rural groups is to increase the fluoride content of selected foodstuffs. Before such methods can be recommended, it is imperative that they be given thorough scrutiny, which would constitute an area of increased research effort for the next few years.

Basic studies on the cause, treatment, and epidemiological characteristics of dental caries and periodontal disease are being continued in our laboratories at the National Institutes of Health. Emphasis has been placed on the various types of bacteria associated with these problems. During the past year, a special technique was developed for isolating and cultivating one group of these bacteria. Studies on experimental animals are being conducted in an effort to evaluate the use of antibiotics and other therapeutic agents. Certain of the newer antibiotics show some promise, and it is hoped that they can soon be used for clinical trial.

Studies on the metabolism of ingested fluorides have received increased attention during the past year. Much new information has been gained regarding the effects of fluorides on the body, with a view to explaining their mode of action. The results have lent added support to the conclusion that fluoridation of public water supplies is absolutely safe.

Other continuing projects include electron microscope studies of teeth and other tissues, and nutrition research to compare the incidence of caries in animals receiving processed and natural foodstuffs. The latter studies indicate that overprocessed foods lead to tooth decay in experimental rats.

The long-awaited opportunity to extend research at the Dental Institute to include patients is being realized as studies in the Clinical Center get under way. Four projects have been initiated. Among these is a study on developmental abnormalities of the face and jaws. Paramount in this group of conditions are harelip and cleft palate, which afflict, as previously mentioned, 1 in each 800 newborn infants. Only the combined skills of the plastic surgeon, dentist, orthodontist, speech pathologist, and psychologist can effect the rehabilitation necessary to give these unfortunates an even chance in society.

Another project is designed to evaluate methods for the treatment of malocclusion. In a third study, an evaluation will be made of surgical procedures in the treatment of periodontal disease, the most perplexing dental condition of adults. The fourth project is designed to determine the worth of special vitamin therapy in wound healing following surgical procedures in the oral cavity. The Clinical Center offers great potentialities for the advancement of fundamental knowledge during the coming year.

PREVENTION AND CONTROL OF DENTAL DISEASES

The second broad area of dental activity in the Public Health Service is directed toward developing and applying demonstrated control and preventive measures. A major problem is to refine and to gain acceptance of these measures on a broad population and geographical basis, so that their benefits may be widely distributed.

For example, one measure universally accepted by recognized health authorities, the fluoridation of water supplies, reduces tooth decay by as much as two-thirds, for a lifetime expenditure of $7. At present, however, only about 15 percent of the population using public water supplies are being afforded this benefit. These 16 million persons reside in less than 1,000 communities. The remaining 85 percent of the population reside in some 14,000 towns and cities. Progress in gaining community acceptance of water fluoridation, like that associated with other public health procedures, is extremely slow.

At the present time, topical application—placing fluorides directly on the teeth—is the only method available for partially controlling dental decay among people living in rural areas. We are currently attempting to improve and streamline the application techniques.

A pilot program concerned with the removal of excess fluorides naturally present in some water supplies is in progress. These studies are being conducted in Bartlett, Tex., and Britton, S. Dak. Bone char and activated alumina show excellent promise for reducing the fluoride content of a water supply to the optimum level. The populations observed in this program have received excess fluorides naturally over a long period, and therefore provide an opportunity to learn the upper limits of fluoridation. Considerable progress has also been made in working out a precise, simple procedure to determine the fluoride content of water, and one procedure already developed is now a part of the standard guide for water works operators.

DENTAL MANPOWER AND RESOURCES

While water fluoridation and topical application of fluorides are valuable tools for preventing a portion of dental decay, much remains to be done in determining the exact cause of the disease. Until this baffling question is resolved, completely effective control measures will not be available. A significant amount of tooth decay can still be controlled only by the dentist. Our third broad area of activity is therefore concerned with dental resources.

Much has been said in recent years concerning the shortage of dental manpower confronting the Nation. Since about 1930, the increase in the number of dentists has failed to keep pace with the growth of the total population. In the face of current military requirements, it has proved impossible to maintain the 1949 dentist-population ratio for the Nation as a whole.

In order to assist the dental schools in their efforts to enlarge enrollment capacity, the Public Health Service collaborated with the American Dental Association in a detailed study of dental-school costs, sources of revenue, and unmet needs for staff and plant expansion. The results have thrown considerable light upon the financial status of the schools and have furnished a wealth of information for agencies planning the establishment of new schools.

Widespread concern for the increasing costliness of a dental education to the student has lead to requests that the Public Health Service undertake a study of student financial status. With much of the basic preparation accomplished, this survey should be completed by the close of the current academic year.

It is clear that the need for dentists is unevenly distributed over the Nation, and that there are striking regional variations in resources for dental education,

economic wealth, and rates of population growth. The Public Health Service is now engaged in an area analysis designed to evaluate these regional differences. The results will suggest the most favorable sites for the establishment of new schools. Special tabulations of this material will be valuable to civilian defense agencies.

Since the manpower shortage is not likely to be eased in the foreseeable future, there is an obvious need for experiments in extending the services of our present supply of dentists. We are therefore exploring what appear to be potentially more effective and economical methods of utilizing auxiliary workers, such as dental hygienists, dental assistants, dental technicians, and clerical and administrative personnel. Our studies suggest that a dentist's productivity in clinical work can be doubled and the quality enhanced by proper use of chairside assistants.

Furthermore, in the face of a severe shortage of dentists available for public-health work in the States, we are now using dental hygienists in Massachusetts, Maryland, Oregon, and Arkansas to determine their acceptability and effectiveness in the conduct of programs.

We are continuing our observations on various methods of dental practice that may increase the volume of service while reducing costs and safeguarding quality of dental care. Preparations are being made to compare a series of prepayment dental programs with regard to unit costs, scope and utilization of services, and details of administrative and professional management.

DENTAL NEEDS AND OPPORTUNITY

The disparity between dental needs and services received in this country is beyond dispute. Dental disease is among the commonest of human ailments, and scarcely any American escapes its ravages.

Neglect of dental disorders is encouraged by the widespread feeling that few die of dental disease. This neglect, coupled with the almost universal occurrence of dental disease, is the essential reason for the accumulation of dental needs repeatedly encountered in health surveys and particularly by the military. The role of dental defects as a leading cause of rejection for military service in World War II has been emphasized over and over again. Perhaps not so well known is the parallel finding that large numbers of those rejected for defective dentition already gave evidence of the same defects 15 years earlier, when they were elementary-school children.

The Nation's annual expenditure of over a billion dollars for dental care represents about one-eighth of the American consumer's expenditure for health services. This figure, however, does not tell the whole story. It is almost impossible to measure accurately the loss in production through diminished efficiency and industrial absenteeism occasioned by dental illness.

In view of these costs in dollars and ill health, it is evident that there are tremendous possibilities for savings from intensive research, prevention, and control of dental disease.

Mr. BUSBEY. Dr. Arnold, your request for the 1955 appropriation year is $1,730,000, which according to my figures is $10,000 less than the amount appropriated for 1954, is that correct?

Dr. ARNOLD. That is correct.

RECENT ACCOMPLISHMENTS

Mr. BUSBEY. Doctor, tell us what has been accomplished in the last 2 or 3 years toward helping the American people keep their teeth healthier and avoid dental caries.

FLUORIDES

Dr. ARNOLD. I think probably the outstanding findings which have resulted from our research activities during the past 2 or 3 years, of course, relate to the effect of fluorides on dental caries; which also resulted from the program of fluoridation of water supplies.

Mr. BUSBEY. That program started some years ago. What are you doing in that field now?

Dr. ARNOLD. We are continuing our study at Grand Rapids and Muskegon, Mich., where we are following effects of fluoridation of the water supply on schoolchildren in Grand Rapids. This is a study which by necessity involves children up through the teen ages and thus the study will continue for several years.

As a result of that study one of the outstanding things which has been observed this past year is the fact that we are finding the older people in Grand Rapids are getting an effect from fluoridation, I mean 16-, 17-, and 18-year-old groups. They are not getting as much as those born and reared on the fluoride water but they are getting a reduction of 25 to 30 percent, and that suggests to us, also, that the adults in Grand Rapids may be receiving benefits.

That was something we could not, of course, have looked forward to.

I think in addition to the studies directly related to fluoridation we have in the past year developed new techniques for determining fluoride in water supply. We are trying to get simpler, more practical methods of determination of fluorides for use in the waterworks for the people in smaller communities.

We are also, in this same area of fluorides and the relationship of fluorides to dental caries, studying the use of different fluoride compounds. Just within the past 2 or 3 months we completed some experiments which indicate that ammonium silica fluoride would be a very effective and safe fluoridation agent to be used.

Of course you realize that until such agents are tested to find their effectiveness and safety they cannot be recommended for fluoridation.

Going into the other area——

Mr. BUSBEY. Before we leave the discussion of fluoridation; what are the ill effects of fluoridation of water?

Dr. ARNOLD. We know of no ill effects of fluoridation of water, Mr. Chairman.

Of course, that is at the levels used now, between 1 and 1½ parts per million. As you get up to where we have 3, 4, or 5 parts per million in water you observe an enamel fluorosis.

Mr. BUSBEY. I am bombarded with letters from all over the country protesting against fluoridation of water. They come to me at the rate of at least 10 or 15 a week.

Dr. ARNOLD. I think, Mr. Chairman, like all new public health procedures there are those groups who do oppose the procedure. There are people who consider fluoridation of water supply a type of medication, and therefore they will oppose it on either religious rights or groups such as the chiropractors who oppose it as they oppose all medication, whether it is vaccination or whatever it may be. Those are the principal groups that are opposing and writing letters in this matter.

Mr. BUSBEY. Do you consider it a medication?

Dr. ARNOLD. I personally, do not consider it a medication.

Mr. BUSBEY. Pardon me for interrupting. I wanted to explore that a moment.

PYORRHEA

Dr. ARNOLD. I think going away from the fluoridation and fluorides, some of the other accomplishments should be mentioned. As this

committee may recall, we have been expressing the need for increasing our activities and research on periodontal disease (pyorrhea) of the adult population.

The opening of the clinical center has given us a very marvelous opportunity to get into this area of research. Prior to that time we had to more or less confine our research activities tc experimental animals, and many of the experimental animals are not too good for studies on periodontal research, but since the disease occurs principally in adults it was difficult for us to get a group of people to study.

The clinical center now has furnished us that facility, and we have been fortunate over the past year or two to get on our staff four well-trained scientists who are presently active in research projects designed specifically to determine some of the causes of the diseases of the soft tissues of the mouth.

Of course you realize that periodontal disease, pyorrhea, is a long, chronic, drawn-out type of disease and results would not be too startling or complete at the present time.

We have one result, however, which has come from our studies in the clinical center and which is more complete than others. We have been able to develop an index for measuring periodontal disease and in the course of the past year we have been able to evaluate this index. The research man who developed it feels now that he is able to go ahead and conduct studies using this periodontal disease index, because he feels he has tried it on enough different types of patients with various disease conditions.

POSITION OF INSTITUTE ON TESTING NEW PRODUCTS

Mr. BUSBEY. Let us imagine for a moment that I am a research chemist. I have developed some new substance which I am satisfied would be a cure for pyorrhea.

In order to get that tested could I come to your Institute and present that to you and would you explore the possibilities of it?

Dr. ARNOLD. I would say you could come to the National Institutes of Health in terms of a research project grant. We have our project grants and you could make application for a grant to test out such a procedure.

Mr. BUSBEY. The research already is done on it so far as the chemical matter is concerned. Now it is a matter of testing it. How would I go about that?

Dr. ARNOLD. If we were in a position to test it ourselves or help you in testing it, I am sure we would do that. We would be interested in carrying on such a research study.

Mr. BUSBEY. Public Health Service carried on tests for fluoridation of water and put their task forces in the field to go out and sell the program to the various communities.

I am wondering what the mechanics would be if someone developed what seemed to be a cure for pyorrhea.

(Discussion held off the record.)

Dr. SHANNON. The research program at the National Institutes of Health represents our interpretation of how we can use our scientists and our resources most effectively. We pursue what we judge to be the most productive lines of investigation.

If an investigator in a university or industry comes up with a research discovery which would appear to fit well with our going

research program, it then becomes possible for us to invite him to our laboratories and clinical facilities and participate with us in the extension of his observations beyond his own resources.

If on the other hand his discovery or his intended program bears no relationship to the going program at the National Institutes of Health, it is recommended he seek local advice to interpret to him the resources of his area so that he may proceed locally with the further testing of his product, and he can do this by going into competition in our grant system for Federal funds.

In other words, there are two ways available for a man to obtain aid in the further testing of a new discovery.

POSITION OF INSTITUTE REGARDING BENEFICIAL PRODUCTS ALREADY TESTED

Mr. BUSBEY. All right. Now I have taken this product and have had it tested. I have had a reasonable number of dentists try this product over a period of years so that we have here a field of results. If this product has been proven worthwhile, what do we do, as the National Institute of Dental Health, to further bring that to the attention of the dentists of the country and the public?

The end result of all this research is for public health. All these things are not done in the research laboratories or in the medical schools. Some individual might happen on to an important discovery as we have seen happen in hundreds of cases. Frankly, I am under the impression that if that fellow went to the American Dental Association he might run up against some objection to it. I don't know, so I am just trying to explore what an individual has to do to get his proven product brought to the attention of the public with the proper endorsement.

Dr. SHANNON. If it is a good product, one of great significance to influence our people, there is a way to call it to the attention of the people, through the community service programs supported in the States.

There also is a way for a voluntary association to do this with a hypothetical product as the American Heart Association is doing with penicillin in the prevention of rheumatic fever.

Mr. BUSBEY. We are spending millions of dollars on research for public health. I want to know what is the United States Government doing, what is the United States Public Health Service doing, what is the National Institute for Dental Health doing to try to bring to the attention of the medical profession and the dental profession products such as I described, and what do they contribute to proving that they are worthwhile and should be used?

Dr. SHANNON. They can do it in a variety of ways, sir. First they participate in research which evaluates the product in an objective way.

They participate with the States, with associations and with the profession.

Mr. BUSBEY. That doesn't apply to the hypothetical case we have been discussing. You don't have to do anything to cooperate with anybody in research. Research has been done. Here is a proven product.

Dr. SHANNON. As I say, in association with professional societies, the use of penicillin in rheumatic fever is a good example.

It is being applied actually along three lines: One, in conjunction with the American Heart Association; two, with the use of technical assistance money by putting on demonstration programs on a communitywide basis; and three, funds are made available through the general assistance program to States, so that the States may choose to use these funds to push this program in a particular area.

In addition you have scientists at NIH participating in programs of both professional and lay education; you have programs of professional education in medical schools supported in some of these areas——

Mr. BUSBEY. Wouldn't you agree that is a long, tedious process which vill take years and years?

It does seem to me with all the money we are spending in this field that some consideration should be given to a formal endorsement of a product, after you have taken any means or methods which you want to take to satisfy yourselves that the claims on a particular product are all they are claimed to be.

Dr. SHANNON. I should hate to see NIH put in a position of having to endorse products, Mr. Busbey.

Mr. BUSBEY. It is not a matter of endorsing them as such. If you go through your steps so you will have your research tests, at least the findings available——

Dr. SHANNON. I think that is done very effectively now, Mr. Busbey.

Mr. BUSBEY. I haven't been able to see in what way; really I haven't.

Dr. SEBRELL. When something good comes along the word seems to spread through the profession pretty rapidly by means of the scientific journals and the commercial companies who go into the production of a new product of value, do their own commercial promoting in a very effective way.

Take the introduction of penicillin and the whole field of antibiotics. They very rapidly came into widespread use.

Mr. BUSBEY. But introduction of penicillin is different. I am just an outsider. I am not a dentist. I don't belong to any dental association. I have no privilege of getting up at a dental convention and reading a paper before a group so I can get it in a dental journal.

Dr. ARNOLD. You would have the privilege of being before them. You could present your material before a professional research organization, and it would be published.

Mr. BUSBEY. Where?

Dr. ARNOLD. Journal of Dental Research, by biological and chemical journals; any one of a number of research or dental journals. Your article would be published there and it would be widely read by all other scientists and professional dental groups in such a case as this.

Mr. BUSBEY. All I have to say is, that for an individual who is not "in," it is a hard thing to get any consideration from either the American Dental Association or the American Medical Association, either one of them. I have had different things called to my attention along that line. You are just out in the cold, almost, if you are not one of them.

Dr. SEBRELL. As far as NIH goes, as Dr. Shannon indicated, we have hundreds of requests all the time to investigate various things.

Based on our experience with many of these, one of our rules is that if you want us to help you investigate some sort of a new discovery you must tell us what it is. We cannot investigate something that is secret.

We very frequently find that the individual concerned has a secret formula of some kind for which he perhaps is seeking a patent or he is looking for some way of making a profit out of this discovery which he thinks he has, and he finds himself reluctant to tell us all of the facts in the case.

We feel that we cannot engage in any sort of a project unless we do know all of the facts.

Then when we find the facts, or if the composition of this product is completely revealed, we look things over. If it seems that there is some possibility or good coming of this, or that further work is needed, we feel we should decide how this study should be set up in order to prove the point.

Again we run into the difficulty that the individual desires to run the study in the way he wants to run the study, which may not meet our criteria of what constitutes a good valid study.

Many, many times these difficulties which I have mentioned result in an inability to get anywhere.

We do not have a closed mind to any possibility, and we look at even the wildest ideas; at least we look at them because we do not want to overlook any possibility of a new discovery in some of these very important fields in which we deal. But we cannot dissipate our appropriation just following out every suggestion that comes to us. We never would make any real progress.

Mr. BUSBEY. All right. I didn't intend taking up so much time on that.

TECHNICAL ASSISTANCE TO STATES

On page 6 of the justification you speak of technical assistance to States, I notice this accounts for about one-third of the appropriation.

How is that allocated, Doctor?

Dr. ARNOLD. That is not allocated to the States, Mr. Chairman. That is the money with which we operate our consultive program under direct operations in our regional offices, which in turn furnishes technical assistance in terms of consultive services to the various States at the request of the States or local communities. These people are all Public Health Service personnel.

JUSTIFICATION OF THE ESTIMATES

Mr. BUSBEY. I think the prepared justifications covering technical assistance to States, and coordination and development of dental resources should be entered in the record at this point. These two activities account for the major part of your direct work.

(The information referred to is as follows:)

Technical assistance to States

	Estimate, 1954		Estimate, 1955		Change (+) or (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
Personal services	101	$522,200	98	$506,000	−3	−$16,200
Travel		65,700		52,000		−13,700
Transportation of things		19,650		18,650		−1,000
Communication services		2,100		2,100		0
Rents and utility services		450		450		0
Printing and reproduction		5,000		4,000		−1,000
Other contractual services		20,000		18,000		−2,000
Supplies and materials		52,000		50,000		−2,000
Equipment		17,900		7,900		−10,000
Taxes and assessments		1,000		900		−100
Total		706,000		660,000		−46,000

GENERAL STATEMENT

This estimate will provide for field studies and investigations designed to develop more effective techniques for controlling dental diseases and will furnish limited consultative services and technical assistance directed toward developing and applying demonstrated control or preventive measures. Developmental studies to be conducted under this activity are:

(1) The reevaluation of the amount of dental care that will be required in terms of reduced prevalance of disease by studies of dental care needs of children exposed to the benefits of fluoride-bearing water;

(2) The continuation of the study carried on at Grand Rapids, Mich., to develop complete information on the beneficial effects of fluoridated water;

(3) The improvement of current fluoride determination methods through development of simplified tests suitable for use by water-plant operators who do not have extensive chemical or engineering skills;

(4) The work of testing and improving processes for removal of excess fluorides from drinking waters at both Britton, S. Dak. and Bartlett, Tex.;

(5) Studies to determine more precisely the optimum fluoride concentration in relation to the variable geographic and climatic conditions in the United States;

(6) A study designed to develop and test procedures dental hygienists might employ effectively in local and State programs which will demonstrate the usefulness of this type of personnel in the dental care programs in the communities;

(7) The improvement of dental health in the adult population by collection of dental actuarial data on adults, measurement of dental services rendered in industry, and evaluation of dental health education procedures in adult education programs;

(8) The study on the long-term effectiveness of topically applied fluoride solutions on a specific group of children and the benefits of these and other compounds on adults.

The preventive measures which have shown to date to be the most practical and effective methods of reducing dental decay on a public-health basis are the fluoridation of water supplies in urban areas and the application of topical agents in rural areas. These two procedures, which will enable whole groups of people to reduce their dental decay problem from 40 to 65 percent, have the endorsement of recognized authorities in the health field. A major problem is to refine and gain acceptance of these measures on a broad population and geographical basis, so that their benefits may be widely distributed. Progress in gaining community acceptance, like that associated with other public health procedures, is slow.

The reduction in this activity provides for the elimination of 3 positions and decreases in other objects amounting to a total of $46,000.

Coordination and development of dental resources

	Estimate, 1954		Estimate, 1955		Change (+) or (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
Personal services	21	$98,000	21	$90,000	0	−$8,000
Travel		5,200		5,000		−200
Transportation of things		2,000		700		−1,300
Communication services		400		400		0
Printing and reproduction		1,500		1,500		0
Other contractual services		3,000		1,000		−2,000
Supplies and materials		800		500		−300
Equipment		1,000		800		−200
Taxes and assessments		100		100		0
Total		112,000		100,000		−12,000

GENERAL STATEMENT

Funds under this activity provide for investigations of dental needs confronting the Nation and the availability of dental manpower to service these needs. The estimate also includes provisions for studies to better utilize the existing professional personnel and to study and evaluate methods and costs of rendering and paying for dental care.

Specific projects under this activity are:

(1) Continuation of studies to determine the effect of the geographic location of dental schools on the ratio of dentists to population.

(2) Continuation of studies designed to catalog and evaluate the many variations in group dental practice and prepayment dental plans and to determine the extent and adequacy of coverage and attendant costs.

(3) Continuation of an assessment of methods to effectively increase the productivity of dentists now in practice through such means as the employment of well-trained chairside assistants and the use of improved equipment and technical procedures. Pilot projects and experimental teaching programs are being formulated for the training of dental students to use auxiliary personnel effectively.

(4) Continuation of studies to measure the extent of malocclusions and dentofacial deformities. An index has been developed to assess these disfiguring conditions. During the coming year the index will be checked with individual clinical findings. Estimates of the dental manpower requirements to meet the need for orthodontic services have been lacking because of the inability to measure the prevalence of dentofacial deformities.

The decrease in funds for this area of activity will necessitate a decrease in employment equivalent to 1 man-year and concomitant reductions in nearly all other classes of obligations.

AUTOMOBILES

Mr. BUSBEY. What are the 23 automobiles that you own used for, Doctor?

Dr. ARNOLD. They are used by the people in the regional offices for transportation to and from the various communities where their services have been requested.

Mr. BUSBEY. Where are those distributed?

Dr. ARNOLD. They are distributed throughout our regional offices.

Mr. BUSBEY. Are they used for any division other than the dental department or are they confined to your department entirely?

Dr. ARNOLD. To our department.

Dr. KNUTSON. Yes, Mr. Busbey, my comments will relate somewhat to your previous question on testing of various agents, also.

I think it should be emphasized that although this activity is entitled "Technical assistance to States" that the major portion of the activities are actually concerned with testing methods for preventing dental disease, for conducting field studies and field trials. The

water fluoridation study has been mentioned, which has been carried out in cooperation with the National Institute of Dental Research. There are other studies such as testing the topical agents, topical fluorides, topical methods for preventing dental caries.

There are studies concerned with development of effective defluoridation methods for removing excess fluorides from the drinking-water supply where they occur naturally.

There are chemical studies concerned with developing simpler fluoride testing devices.

There are studies concerned with determining the impact of fluoridation on the community's problem of dental care among schoolchildren.

Therefore, again I want to emphasize that a major portion of this budget is concerned with the type of activity you were inquiring about earlier and that these cars are used in these studies to carry out these field investigations. None of these funds are grants to the States.

Mr. BUSBEY. Are any of the 23 cars here in Washington?

Dr. KNUTSON. I think not. I would have to supply the answer to that.

Mr. BUSBEY. According to the hearings of last year you had 52 about a year ago. What happened to the 29 automobiles that were disposed of?

Mr. KELLY. I believe we supplied for the record in the early part of the hearing the disposition of all of the cars disposed of for the entire department.

Mr. BUSBEY. The 29 would be taken care of in that group?

Mr. KELLY. In that total, yes.

Mr. BUSBEY. Out of the 29 do you know if any of them were transferred to any of the State health departments?

Mr. KELLY. Offhand I do not.

Mr. BUSBEY. Would you check it and supply it for the record, please?

Mr. KELLY. Yes.

(The requested information follows:)

Transferred to other Public Health Service activities	6
Transferred to other Government activities	4
Disposed by GSA	8
Donated to schools, hospitals, State educational agencies, under surplus property procedures	11
Total	29

Mr. BUSBEY. Mr. Thomas?

Mr. THOMAS. I have no questions.

(Dr. Francis Arnold's replies to questions subsequently submitted by Congressman Fogarty:)

Q. What was the Truman budget estimate for fiscal year 1954?—A. $2,700,000.

Q. What was the revised Eisenhower budget for fiscal year 1954?—A. $1,740,000.

Q. How much did the House of Representatives provide in its bill for fiscal year 1954?—A. $1,650,000.

Q. How much did the Senate provide for fiscal year 1954?—A. $1,740,000.

Q. How much did the appropriations law provide for fiscal year 1954?—A. $1,740,000.

Q. How much do you request now for fiscal year 1955?—A. $1,730,000.

Q. Your estimate of $221,000 for research grants is the same as for 1954. Does this represent an increase over the appropriations in previous years and

how many new projects will you be able to support in 1955?—A. The amount requested for research grants, $221,000, does not represent an increase over appropriations for previous years. The appropriation for this item has remained at the $221,000 level since fiscal year 1951. Within the $221,000 estimate, approximately 6 new projects will receive initial support during fiscal year 1955. The major portion of the estimate will provide support for approximately 18 continuing projects. Increased costs for salaries, equipment, and supplies since 1950, has effected an actual decrease in the volume of dental research which has been supported through the research grants program during the past 4 years.

Q. I note that the $50,000 for research fellowships will support about five new applicants. Is this number adequate? In other words, is this program doing an effective job of augmenting the Nation's limited supply of dental researchers?

A. Four or five new applicants receiving research fellowships each year is only a partial answer to the Nation's shortage of qualified dental research workers. The $50,000 appropriated each year for the past 5 years has enabled us to grant fellowships to less than half of the qualified applicants. Approximately 95 percent of those who have completed their fellowships are pursuing careers in research and teaching. To the extent that funds are available, this program is doing a very effective job of augmenting the Nation's limited supply of dental researchers.

Q. It is my understanding that you are requesting a slight increase in funds for direct or intramural research, the amount being about $46,000. Part of this increase is to support clinical dental research in the new clinical center. Is this increase adequate, or are there important areas in dental research which are being neglected?

A.—Approximately $11,000 of the $46,000 increase will be used for extending clinical research by providing support for three new positions. This will permit a small expansion of our research on periodontal disease and cleft lip and palate. Periodontal disease or pyorrhea, the major dental health problem of adulthood, is considered the most neglected field in dental research. A broad research attack on this disease would include fairly expensive research concerned with cellular physiology, histochemistry and enzymology, and broad scaled epidemiological studies. Cleft lip and palate is the most frequent of congenital defects occurring once in 800 live births. Nevertheless studies concerned with the growth and development pattern of the tissues involved studies in genetics, and studies concerned with the complex treatment of this condition have been very limited.

Q. The increase which we referred to of $46,000 for clinical investigations was effected by taking this amount from the technical assistance to States part of the budget. How will the latter program be affected by this cut?

A. When this budget was prepared, a review of the status of the fluoridation program indicated a satisfactory rate of progress. Based on the assumption that fluoridation would continue to gain community acceptance as a public health practice it was decided to reduce our consultative activities in this field leaving this responsibility to the States, and to direct our efforts toward the conduct of field studies on other aspects of the dental health problem.

Q. You stated that the increase in the number of dentists has failed to keep pace with the growth of the total population. What is the extent of that failure and what can the Public Health Service do to resolve this problem?

A. The increase in the supply of dentists has lagged so seriously behind population growth in recent years that an additional 15,000 practitioners would be required merely to restore the 1930 ratio of dentists to population. Currently, there are about 52 dentists for each 100,000 persons, as compared with 58 per 100,000 two decades ago. At the present time the number of new dentists added each year falls short by about 300 of the number needed to keep pace with population growth.

The establishment of new schools or the expansion of existing dental-training facilities is a State or local function. However, the Public Health Service can conduct studies to determine on a geographic basis the relative adequacy of the dental-manpower supply, taking into account the needs of the area, the characteristics of the current supply, and the anticipated changes in both. Dentist-population ratios alone are inadequate measures of the supply, as can be simply illustrated by citing the situation which exists in two New England States. Both Rhode Island and Massachusetts stand well above the national average with respect to their current dentist ratios. A comparison of the age distribution of dentists now practicing in those two States, however, indicates that Massachusetts must replace a far larger proportion of its practitioners within the next two decades than is the case in Rhode Island. In Rhode Island only 40 percent

of the dentists are 45 years old or older whereas in Massachusetts the figure is 60 percent. Through studies which consider all the pertinent factors, areas at the greatest disadvantage can be identified and assistance given to interested local groups which have the responsibility for corrective action. Upon request, more intensive studies can be undertaken to appraise the area's ability to support a new school, and to estimate the probably enrollment the school should have.

Improving the utilization of the existing supply of dentists is largely a matter of changing dental practices. In this field, the Public Health Service can conduct research into such matters as the organization of dental practice, to determine, for example, how and in what numbers auxiliary workers can best be used and whether group practice promises better utilization of specialists services. By giving widespread publicity through the professional journals and other channels to the results of these and similar studies, the Public Health Service can promote the more effective use of a limited dental-manpower supply.

MONDAY APRIL 26, 1954

ARTHRITIS AND METABOLIC DISEASE ACTIVITIES

WITNESSES

DR. FLOYD S. DAFT, DIRECTOR, NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES

DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH

DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate		$7,000,000	$7,270,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		1,750	
Transferred to "Service and supply fund, Public Health Service," pursuant to Public Law 170		−61,600	
Adjusted appropriation or estimate (obligations incurred)		6,985,150	7,270,000
Comparative transfer from "Operating expenses, National Institutes of Health, Public Health Service":			
Direct obligations	$4,288,227		
Reimbursable obligations	47,001		
Total obligations	4,335,228	6,985,150	7,270,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants for research and training:			
(a) Research projects	$1,341,749	$3,196,000	$3,152,000
(b) Research fellowships	148,883	175,000	150,000
(c) Training stipends	51,170	250,000	250,000
2. Direct operations:			
(a) Research	2,613,972	3,145,150	3,512,000
(b) Other direct operations:			
(1) Review and approval of research and training grants	17,530	48,000	36,000
(2) Administration	114,923	171,000	170,000
Total direct obligations	4,288,227	6,985,150	7,270,000
Obligations Payable Out of Reimbursements From Other Accounts			
2. Direct operations: (a) Research	47,001		
Total obligations	4,335,228	6,985,150	7,270,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	354	350	350
Full-time equivalent of all other positions	8	5	7
Average number of all employees	313	332	334
Average salaries and grades:			
General schedule grades:			
Average salary	$4,870	$4,859	$4,859
Average grade	GS–7.2	GS–7.1	GS–7.1
Crafts, protective, and custodial grades:			
Average salary	$2,803	$2,819	$2,819
Average grade	CPC–2.6	CPC–2.6	CPC–2.6
Personal service obligations:			
Permanent positions	$1,675,145	$1,795,754	$1,799,154
Other positions	48,707	27,748	35,748
Regular pay in excess of 52-week base	4,710	5,938	5,938
Payment above basic rates	8,595	7,000	7,000
Total personal service obligations	1,737,157	1,836,440	1,847,840
Direct Obligations			
01 Personal services	1,698,362	1,836,440	1,847,840
02 Travel	25,529	28,000	27,500
03 Transportation of things	10,254	7,180	7,180
04 Communication services	12,913	15,150	15,600
05 Rents and utility services	4		
06 Printing and reproduction	2,369	8,000	8,000
07 Other contractual services	31,011	22,700	22,600
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	754,439	1,180,000	1,517,100
08 Supplies and materials	178,487	196,210	205,510
09 Equipment	35,147	75,750	75,350
11 Grants, subsidies, and contributions	1,541,802	3,621,000	3,552,000
13 Refunds, awards, and indemnities	51		
15 Taxes and assessments	3,450	3,611	3,611
Subtotal	4,293,818	6,994,041	7,282,291
Deduct charges for quarters and subsistence	5,591	8,891	12,291
Total direct obligations	4,288,227	6,985,150	7,270,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	38,795		
02 Travel	3,206		
03 Transportation of things	51		
07 Other contractual services	6		
08 Supplies and materials	3,226		
09 Equipment	1,717		
Total obligations payable out of reimbursements from other accounts	47,001		
Total obligations	4,335,228	6,985,150	7,270,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year			$585,150
Obligations incurred during the year		$6,985,150	7,270,000
		6,985,150	7,855,150
Deduct unliquidated obligations, end of year		585,150	605,150
Total expenditures		6,400,000	7,250,000
Expenditures are distributed as follows:			
Out of current authorizations		6,400,000	6,700,000
Out of prior authorizations			550,000

Mr. BUSBEY. We have for consideration next, the appropriation request for fiscal 1955 for "Arthritis and metabolic disease activities."

Dr. Daft, your request is for $7,270,000?

Dr. DAFT. That is correct, sir.

Mr. BUSBEY. Which is an increase of $270,000 over the 1954 appropriations?

Dr. DAFT. Yes, sir.

GENERAL STATEMENT

Mr. BUSBEY. At this point we will insert in the record your prepared statement regarding this request.

(The statement referred to follows:)

HISTORICAL BACKGROUND

Mr. Chairman and members of the committee; The National Institute of Arthritis and Metabolic Diseases was established under the provisions of Public Law 692, August 1950. This followed a great upsurge of interest on the part of the public and the medical profession in this great group of chronic diseases, hitherto a relatively neglected field. The Institute as organized incorporated the former Experimental Biology and Medicine Institute, consisting of laboratories of biochemistry, nutrition, pathology, pharmacology, physiology, chemistry, and physical biology, with new areas of research directed specifically against arthritis and the metabolic diseases.

No appropriation was made to activate the new Institute's programs until fiscal year 1952 when a total of $3,989,288 was made available to carry out extramural programs of research grants, fellowships, and training and to continue the previously established programs of basic research.

Total funds available increased to $4,568,900 in 1953 and to $7 million in 1954. This has permitted the Institute to move its program forward to an integrated laboratory and clinical investigations program in its own facilities and in university laboratories and clinics, and to establish a modest but significant training program.

INCIDENCE AND ECONOMIC COST OF ARTHRITIS AND METABOLIC DISEASES

The National Institute of Arthritis and Metabolic Diseases has a broad area of responsibility. Our field covers rheumatic diseases, including arthritis, gout, rheumatism, and the "collagen diseases," etc.; endocrine disorders, including diabetes; and other metabolic diseases, such as nutritional deficiencies, diseases of the blood, liver, and bone.

Arthritis, and its related rheumatic diseases, in the United States today afflicts, cripples, and disables more people, and brings pain to more persons than any other chronic disease. The total number of victims is approximately 10 million. Of these approximately 1 million are permanently disabled. The economic cost to the Nation is well over $700 million per year. In our country today 30 million people—one-fifth of the population, including the families of arthritics, are affected by the medical, social, and economic aspects of this problem.

Arthritis, far from being new, is perhaps man's most ancient affliction. It is not just a disease of older people, as some suppose. It strikes people of all ages—children and young adults in the prime of life as well as the aged. The manpower lost each year in the United States because of arthritis is estimated as equivalent to an army of 400,000 unable to work at any time. In addition to the cost of medical care and relief allowances over half a billion dollars a year is lost in wages and salaries by victims of the disease. Arthritis brings with it not only pain and crippling, but impoverishment to many of its victims. It is estimated that the Federal Government loses each year $77 million in income taxes because of the wage earners unable to work.

In 1952 approximately 25,000 persons died as a direct result of diabetes. Perhaps an additional 25,000 died as an indirect result, succumbing to complications of the disease, chiefly diseases of the heart and circulation. It is estimated that more than 2 million individuals in the United States, or between 1 and 2 persons out of each 100, have this serious disease and the rate is slowly increasing. It is estimated that 368,000 life-years were lost in 1952 owing to premature death from diabetes. Of these, 100,000 were in the most productive period of life—the ages between 15 and 65.

Diabetes constitutes a considerable portion of the medical care problem in this country. In 1952 about $1 million was paid to veterans suffering from diabetes. For the 2 million diabetics in the United States it is believed that $150 million above normal living costs are required for medical care, not including costs of hospitalization and expenses resulting from complications.

PUBLIC INTEREST

In the short 5 years since 1948 more progress has been made in the field of arthritis and rheumatism than in any previous generation.

As a voluntary health agency, the Arthritis and Rheumatism Foundation has, since 1948, aided tremendously in bringing about a much greater public understanding of the problems of arthritis, stimulated greater interest and activity in research and patient care, and has been part and parcel of the great expansion of effort which has taken place in this area.

Arthritis research received a mighty boost in 1949 with the discovery of the beneficial effects of cortisone and ACTH upon arthritis. Public interest and hope for a new and better day for suffering arthritics were fired to new highs by the news; the medical profession found itself with new and powerful tools with which to relieve suffering; and medical-research scientists recognized that new concepts and new pathways of research had been opened up with the demonstration that hormonal balance and metabolism might be most important factors in the causation and evolution of arthritis.

Since the discovery of insulin in 1922, research in diabetes has been progressing steadily, increasing our knowledge and understanding of the disease and adding many essential building blocks necessary to the eventual solution of the problem.

The American Diabetes Association was organized in 1940 by a group of physicians interested in the treatment, clinical investigation, and basic research pertaining to the problem of diabetes. Although it and its 1,800 members have wide interests, it is not a voluntary health agency and is not engaged in public-fund raising. Its objectives are professional, patient, and public education and medical research.

The National Institute of Arthritis and Metabolic Diseases was established in 1950. Months of careful study of the health needs of the country by the House Committee on Interstate and Foreign Commerce led to the passage on August 15 of that year of the Omnibus Medical Research Act, Public Law 692, authorizing the establishment of the Institute.

Thus it was that in late 1950 a nationwide program was on its way at last, facing up to many of the most challenging problems in medical research. The share of this program for which the National Institute of Arthritis and Metabolic Diseases is responsible has five parts:

(1) to pursue important leads which promise improvements in the treatment and rehabilitation of patients with arthritis, diabetes, and other metabolic diseases, (2) to support and stimulate a nationwide research program in these fields, (3) to assist in bridging the gap between the gaining of new knowledge in these fields and its application (by means of training programs which should provide adequate facilities and opportunities for training medical and supporting personnel at all levels), (4) to increase the numbers of qualified investigators in these areas through our research fellowship program, and (5) to develop and encourage basic research in metabolism as a future guide to studies in metabolic diseases.

RHEUMATIC DISEASES

Rheumatic disease is usually characterized by aches and pains in joints and muscles, often resulting in stiffening and swelling of affected joints. This family of diseases is composed of several members, each with its own distinctive character. First and foremost is rheumatoid arthritis, perhaps the cruelest of them all. It is a chronic disease that frequently lasts a lifetime. It is a crippler, for which there is no known cause or cure. Another of these diseases is osteoarthritis, otherwise known as degenerative joint disease. This type results largely from aging and from wear and tear of the joint structures. It afflicts people past middle age. It occurs in multiple joints and in the spine with greater or lesser symptoms in all persons who live long enough. There is, as yet, no effective means of arresting this degenerative process in the joints. Still another group of rheumatic victims suffer from nonarticular rheumatism, or disorders of the muscles, bursae, ligaments, tendons, or other tissues.

Finally, there is a group of serious and often fatal disorders known as collagen diseases (lupus erythematosus disseminatus, polyarteritis nodosa, scleroderma).

In these cases the connective tissue which constitutes the supporting structures or framework of the body is attacked, inflamed and often destroyed. The cause is again unknown and the cure as yet undiscovered.

In 1949 it was found that cortisone, a hormone of the adrenal gland, would dramatically relieve rheumatoid arthritis. This discovery offered a most promising avenue of approach to the treatment of certain rheumatic diseases. Drugs and therapeutic measures of value were available before this discovery was made but none offered such dramatic promise as does cortisone and the related pituitary hormone, ACTH. Neither these nor other drugs can be regarded as curative, but they have brought relief to thousands of sufferers and have contributed greatly to their rehabilitation. The discovery of their activity has also provided a key to the effective control of the worst forms of arthritis. Equally important, it has broadened the field of research by indicating that hormonal imbalance and errors of metabolism may be most important factors in the causation and development not only of this but of other diseases.

The opportunities for research in the field of rheumatic diseases are now great and the vigorous prosecution of available leads should yield results of immeasurable value. Since stimulation of the adrenal by injection of ACTH or administration of the adrenal hormone, cortisone, dramatically relieves symptoms of rheumatoid arthritis, it appears probable that abnormalities of the pituitary and adrenal glands exist in arthritic patients. Satisfactory methods are being developed for the determination of cortisone and other adrenal and pituitary hormones in blood and urine. Contributions to progress in this field have been made both through our research grants program and in our laboratories at Bethesda. These studies will be actively pursued.

Much more needs to be known about the causes and the development of this group of diseases. One approach is through careful studies of representative segments of the population. Such studies are now underway, supported in large measure by our grants program.

One of the serious difficulties in rheumatoid arthritis has been the lack of a specific diagnostic test which is simple and reliable. Work is now in progress in our laboratories on a serological test which gives promise of being as specific for rheumatoid arthritis as the Wassermann test is for syphilis. We are also attempting to isolate and identify the substance in the patient's serum responsible for positive reactions.

Another promising field of investigation is the study of errors of metabolism which occur in certain rheumatic diseases. For example, in gout there is an excessive amount of uric acid in the tissues and blood. The excess frequently amounts to as much as 10 to 20 times that found in the body of a normal person. The evidence accumulated in recent years indicates that some gouty individuals produce more uric acid than normal individuals and that the cause of the increase in the tissues therefore is not due to faulty elimination alone. Work is in active progress in our laboratories to determine more precisely the nature of the metabolic error in this disease. With this information it should be possible to devise corrective measures.

In most of the rheumatic diseases there are abnormalities of the connective tissues of the body. A more complete delineation of these abnormalities is of basic importance to our understanding of the development of these diseases. Work in this area is being supported through research grants and in our own laboratories at Bethesda.

Radioactive cortisone and hydrocortisone have been prepared and are now being utilized in studies in our laboratories and through research grants. These studies are designed to answer questions concerning the mechanism of action of these adrenal hormones. They will be traced throughout the body by means of their radioactivity.

DIABETES

Diabetes is a complex metabolic disturbance in which insulin is either inadequately produced or its action inhibited. Since insulin is necessary for the utilization of sugar to produce energy, unused sugar collects in the blood and is escreted in the urine.

Uncontrolled diabetes may progress rapidly to diabetic coma and death. In addition, secondary complications such as coronary thrombosis, disabling nerve lesions, arteriosclerotic degenerative disease, kidney disease, gangrene of extremities and blindness may result.

Diabetes is most commonly found in persons over 40 years of age, in those who are overweight, or in those who have a history of diabetes in their family. Diabetes in children is not uncommon; in one clinic alone 360 diabetic children are

being studied. Because mild diabetes does not necessarily produce symptoms recognizable to the patient, it may be present for some time before it is discovered. Usually the disease becomes serious when the diabetic does not know of his condition or when, once knowing, he allows himself to become careless and his condition to get out of control.

The modern attack on diabetes begins with the discovery of insulin, a hormone derived from the pancreas, in 1922. Since that time new forms of the hormone have been developed which permit, in most cases, a single injection of insulin each day instead of the 2 to 4 which were formerly necessary.

Recently, other important advances have been made. One stumbling block, for example, has been the lack of a method of measuring insulin in blood and body fluids. Such a method has been developed recently in our laboratory at Bethesda. It will measure accurately 3 one-millionths of a unit of insulin in blood. It is now being applied in studies in the Clinical Center in an attempt to answer such fundamental questions as the cause of diabetes, the mode of action of insulin, and the reason for resistance of some patients to insulin.

The problem of the mode of action of insulin is being attacked from several angles. Radioactive insulin has been prepared. One location in muscle tissue where part of its action presumably takes place has been identified. Its further distribution throughout the body is under investigation.

The problem of the prevention of complications such as blindness, coronary artery diseases, etc., is being actively studied in several laboratories supported by our research grants programs. Some of these studies are in humans and others in diabetic animals. It is hoped that such studies will lead to methods of prevention of complications, even though the diabetes may persist.

Finally, the importance of developing better means of identifying patients in the earliest stages of diabetes, or better still, identification of susceptible people before they have the disease cannot be overstressed. Progress has been made in this area and further studies are being actively pursued. Then comes the application of these tests as a public health measure, an area where more effort is needed.

OTHER METABOLIC DISEASES

Metabolism is the series of biochemical processes in the body by which food is assimilated and used for all necessary purposes, including the building of bone and muscle during growth, the performance of work and the maintenance of all body functions. Metabolic diseases may be defined as those which are caused by metabolic errors, defects, or deficiencies.

At least three great classes of compounds are involved in the control of metabolism, the hormones, the enzymes and the vitamins. For example, diabetics cannot metabolize sugar properly because insulin, a hormone of the pancreas, is lacking or does not function properly. Enzymes are involved in practically all body processes. The vitamins frequently occur as coenzymes, necessary for many enzymatic processes.

As in arthritis and diabetes, the causes of many of these diseases are obscure. But, as their various processes have to do with biochemical, physiological and endocrinological abnormalties, investigations in these basic fields are important to our understanding of them.

A number of studies are being conducted on metabolic diseases of infants and children which do not affect our adult population. Among the diseases being actively attacked is lipoid nephrosis, a kidney disease, which was considered almost invariably fatal a few years ago. It has been shown recently that cortisone may be beneficial to the young victims of nephrosis. It is hoped that further work now in progress in following up this lead may throw additional light on the cause and treatment of this malady.

Mucoviscidosis is a disease of infancy and childhood, recognized only since about 1940, which has been considered uniformly fatal. That it is not as rare as previously considered is indicated by the fact that in 2 clinics alone over 100 new cases per year are discovered. These unfortunate children waste away due to inability to utilize their food. At first it was thought to be due to insufficient function of the pancreas, but is now known to be a generalized disease, affecting all mucous secreting glands. It has also been found that in certain cases, if discovered early enough, a fatal outcome can be avoided. A grantee has devised a delicate test which is helpful in detecting early cases. This discovery opens up new possibilities for research on this disease.

An important and dramatic approach to a better understanding of the relationship between metabolism and mental deterioration has been developed by a group of investigators supported by a National Institute of Arthritis and Metabolic

Disease grant. Phenylpyruvic oligophrenia is an hereditary disease of children which results in imbecility and has long been considered incurable. Working on the assumption that the disease was a metabolic disorder, these investigators, treating young patients in whom the disease had progressed to the point of mental deterioration, were able, by proper dietary control, to reduce to normal levels the excessive amounts of breakdown materials which appear in their urine. Most important, in the one case reaching them wherein the diagnosis had been made early enough, before mental deterioration had begun, the child was placed upon the specified diet and, after 6 months, has not yet shown signs of the mental deterioration which ordinarily would have taken place. If this pioneer experiment can be duplicated in additional patients another important milestone in metabolic research will have been reached.

Growth hormone has been shown by investigators in our Institute to have a profound effect on the production of collagen, an important constituent of connective tissue. In certain endocrine imbalances, such as thyroid insufficiency (hypothyroidism), it is produced at a faster rate than all other proteins. This has a very practical importance since abnormalities of connective tissues are known to be present in the rheumatic diseases. The availability of growth hormone in pure form now permits a definitive study of the relationship between it and arthritis. This is now under study in our own and other laboratories.

Our investigators are making progress in an attempt to determine the nature of certain unknown causes of thrombocytopenic purpura, a disease wherein there is spontaneous internal bleeding due to inability of the afflicted person's blood to perform its normal clotting action.

Observing that transfusion of whole blood or plasma from patients with the disease to normal persons resulted in a reduction of the platelet count in the normal person's blood, these investigators have determined that an agent, probably a protein antibody, exists in the diseased person's blood which effectively immunizes it from the normal clotting influence of his own blood's platelets. This agent, or antibody, continues this action destroying platelets in the blood of the normal person, following transfusion.

Attempts are now being made to define and clarify the diverse types of platelets in the blood of man. It is now apparent that probably eight different types exist. An in vitro test has been devised for detecting platelet agglutinins, and the study is being continued.

Patients with liver cirrhosis accumulate large amounts of fluid in their abdominal cavities. This fluid, rich in protein, must be removed periodically. This places a great strain on the damaged liver since the lost protein must be replaced. Investigators in the National Institute of Arthritis and Metabolic Diseases, by use of a low-salt diet, have prevented or decreased this accumulation of fluid. This treatment in many instances has led to rehabilitation of patients.

Massive necrosis of the liver—the dying off of cells in large areas of that vital organ—has been subjected to intensive research in the laboratories of the National Institute of Arthritis and Metabolic Diseases. Our investigations have shown that deficiencies of three dietary factors simultaneously—are involved. These factors are certain amino acids (building blocks of proteins), vitamin E and a new factor which is as yet to be identified. Isolation of this new factor is in progress.

TRAINED MANPOWER

Despite many gaps in our knowledge more is now known about rheumatic and metabolic diseases than is being applied in practice. A major reason is the shortage of well-trained clinicians. There are, for example, only 800 members of the American Rheumatism Association, the only professional organization with special interests in this area. There is a crying need for additional physicians trained in the modern concepts of the diagnosis, treatment and rehabilitation of patients with arthritis, other rheumatic diseases, and the metabolic diseases. Such a need can be but partially met by training programs such as that now available from the National Institute of Arthritis and Metabolic Diseases.

There is not only a dearth of physicians trained in the field, but the supply of qualified research personnel is inadequate relative to the importance of the disease. While we are in the process of supplying more adequate support to those now trained for research in all aspects of the rheumatic and other metabolic diseases, we must simultaneously take measures to expand the total research capacity of the Nation in this field. The number of centers capable of doing research in arthritis and rheumatic diseases can be expanded. The major objective in expanding research capacity is to increase the number of investigators interested

in or trained in research in this field. The research fellowships program is proving to be of assistance in the production of competent research workers, but the outside demand far exceeds the available funds.

Our broad-scale attack on arthritis and the metabolic diseases, fully organized for only 3 years, has brought about tremendous advances in our knowledge of, interest in, and ability to do something about this group of vicious, disabling diseases. Only now, after centuries of neglect, is real progress being made. Although these diseases annually afflict millions of our citizens it has not been recognized until recently that they pose a medico-socio-economic problem of the first magnitude.

We are now at the point where the future holds promise of great gains: at the point where the momentum gained within the past few years may be applied with greatest effect to bring out early answers to the problems which still block the discoveries which will solve the ultimate problems.

The goals are not within easy reach, but they are far closer than they were only 5 years ago. There is every reason to believe that, profiting from, and building upon the progress made to date, our movement toward the final answers will be accelerated if the current amount of pressure can be maintained.

No feeling of complacency is justified, for the sum total of our knowledge, while considerable, still has grievous gaps. But, based certainly upon past achievement, upon the rising tide of public interest and support, and upon the broadening base of fundamental knowledge which is accumulating, optimism most certainly is justified, and most certainly does exist.

PROGRESS DURING LAST YEAR

Mr. BUSBEY. In your prepared statement the historical background and the description of the diseases was very interesting and informative, but I think that the committee would like even more to know just what has been accomplished with the six or seven million dollars spent during the last year which is of benefit to people with these diseases.

Dr. DAFT. Yes, Mr. Busbey.

There has been a great deal of progress made in all of the fields of interest of this Institute.

I think you might be interested in hearing something of the progress in the field of arthritis. Thanks to the interest and help of this committee we have been able during the past few years, including the past year, to evaluate more fully the benefits to be secured from the new drugs, cortisone and hydrocortisone, as compared to the older methods of treatment.

I have with me here a couple of charts showing one long continued study in this field which shows very definitely the benefits obtained, which is a direct result of our program, if you would care to see them.

Mr. BUSBEY. Yes; I think we would.

CORTISONE THERAPY FOR ARTHRITIS

Dr. DAFT. These two charts show, first, the actual results of prolonged cortisone therapy in 58 rheumatoid patients.

By prolonged therapy we mean continued therapy from 1 to 3 years.

You will notice that although there is not 100 percent good results, that there is a very high incidence of beneficial results to the pateints.

Only 2, for example, remained bedridden out of 17.

Only 4 remained in the semiambulatory group, while the increase in the ambulatory group has been from 30 to 52. That is an increase of 22 coming from the bedridden and semiambulatory.

The next group of figures shows how many are self-sufficient. There were 31 who could not take care of themselves before therapy was instituted. Only six remained in that category after the treatment with cortisone.

You will notice that there is an increase of 34 in the employable individuals in this group. Nine of those could be employed only part time, but the remaining twenty-five now are employed full time as a direct result of the therapy with these drugs.

Before we go on to the next chart are there any questions?

Mr. BUSBEY. One of the big things which has happened during the last few years in the use of cortisone is the fact that they have been able to determine the proper dosage to give.

Dr. DAFT. That is correct, Mr. Busbey.

Mr. BUSBEY. The first experiments and results were bad because they had not determined the proper dosage on a scientific basis?

Dr. DAFT. That is correct, Mr. Busbey. One of the big benefits, as you point out, is to learn how much of the drug can be used with beneficial results.

These are the same 58 patients on this chart who have received cortisone therapy compared with 250 patients that have received the standard treatment which was available before cortisone was discovered.

It is true, of course, that the previous treatments were of benefit to arthritis patients.

The summary on the right indicates that 53 percent of the patients receiving the standard therapy were benefited to some degree without cortisone.

However, of those who received cortisone 94 percent were benefited to some degree, and that benefit covers all ranges.

There was a remission of 23 percent with cortisone as compared to 15 percent with older methods; major improvement in 28 percent as compared to 17 percent; and minor improvement to 43 percent as compared with 21 percent. Only 6 percent failed to respond at all to cortisone as compared with 47 percent failures with older forms of treatment.

It is estimated today that with all of the therapy which is available, including cortisone, if it were properly applied early enough then we could prevent the crippling in 75 percent of the patients with rheumatoid arthritis. A great deal of that progress has been made in the past few years as a result of the help you have given us, largely through our research grants program.

Mr. BUSBEY. I think the statistical study you have shown there on the charts is extremely interesting, but what about the medical advance in the past year in the treatment of arthritis?

Dr. DAFT. The big advances in the treatment of arthritis have come, I believe, as you have pointed out, in learning the dosage of the drugs. We are also making considerable advances in learning how to treat some of the other things which accompany the crippling in arthritis.

DIAGNOSTIC TESTS FOR ARTHRITIS

Progress is being made in elaborating a test for arthritis. We are now at the Institute at Bethesda working on a blood test which we hope will be as accurate as the Wasserman test for syphilis. It looks very promising and that work is progressing.

There have been also a number of new drugs discovered in recent years which are of help in the treatment of arthritis. Phenylbutazone is the name of one of these new drugs. They will be of help along with cortisone and hydrocortisone.

Many studies are going on in addition to testing the newer drugs and the new test for arthritis as, for example, in relation to the anemia of arthritis. That is a very distressing complication, and we ourselves, as well as several other laboratories, have been studying what is the cause of the anemia of arthritis and what we can do about it.

TYPES OF ARTHRITIS

Mr. BUSBEY. What are the other types of arthritis besides rheumatoid arthritis?

Dr. DAFT. There are a number of diseases, Mr. Busbey, which are generally classed as the rheumatic diseases.

There is osteoarthritis which occurs more largely in people as they get older, although some osteoarthritis does begin in fairly early years.

Mr. BUSBEY. Cortisone has no effect on them?

Dr. DAFT. It has very little benefit if any in osteoarthritis.

There are a number of related diseases, such as gout. That is a disease which belongs to this general group. Then there are a number which are classed as the collagen diseases, most of them with very long medical names.

Most of these, with the exception of the osteoarthritis, are benefited either by cortisone or hydrocortisone, or by some of the newer drugs.

In gout with uric acid deposits, for example, benemid, one of the new drugs, has been extremely beneficial.

NEW DEVELOPMENTS IN DETERMINING PROPER CORTISONE DOSAGE

Mr. BUSBEY. What has been discovered recently, with regard to the dosage of cortisone and hydrocortisone during the past year?

Dr. DAFT. There has been a great deal of work going on, as you know, in that field. I think that it has to be evaluated, they have found, for each patient. They know a general dosage level at which to begin, but there is no prediction as yet whether that particular dosage will be too high or too low.

What they do is to try to suppress the symptoms, of course, with the dosage, and see if they get any distressing side effects. When they do get such side effects they very often discontinue the drug and then begin again with a slightly lower level. In this way they are able to arrive at a dosage level in most cases which will be of benefit without the side effects. In a few cases, of course, that is not true.

PROGRESS IN METABOLIC DISEASES

I would like to mention if I might, Mr. Busbey, at the appropriate time, a little of the progress which has been made in the metabolic diseases, also, which is a very important area of our Institute's responsibility.

This is a term which is less well known, perhaps, than the term "arthritis." It indicates those diseases where there is either an inborn, or there develops a defect in the way in which the body takes care of some important foodstuff.

The transformation of this food material to things of value to the body, we call metabolism. When there is a defect in this transformation we call it a metabolic disease. By such a definition diabetes itself is a metabolic disease because there is an inability to take care of the proper transformation of sugar into energy.

This is one of the extremely promising areas for medical research. It is true that we are only beginning to realize the potential of research in this field, but already some areas are showing very definite promise.

For example, there is a disease of children which is very distressing. It has a long name which I will not give you, but it involves the incorrect metabolism of one of the amino acids, which is what makes up the protein, so there is a metabolic defect in protein metabolism of one particular amino acid.

It is always followed by imbecilism in these children. It is invariable that this results.

On the assumption that this is a metabolic disease, one of our grantees has been studying this and finds that by giving a very special diet in which this amino acid is very low, he can do this by picking very carefully the protein foods which he gives to the children, and if necessary giving amino acids as well, he is able to cut down these byproducts to a very low figure and most promising of all in one infant which was carried for some 6 months on this diet the expected brain changes did not occur.

This is very early in this study, but it is a promising field of study which I think we should continue.

OBESITY STUDIES

Mr. BUSBEY. On page 3, in the third paragraph, you state:

> Other investigations supported by the Institute are directed toward diseases involving metabolic and endocrine disorders, such as diabetes, diseases of the liver and kidneys, anemias, and obesity. There are approximately a million known diabetics in the United States and an estimated million undetected. Obesity, our major nutrition problem, is sufficiently prevalent to impair the health of one-quarter of the Nation's adults.

Evidently from that statement obesity is a very major problem in this field. How much is being spent on this disorder?

Dr. DAFT. Any figure I give you, Mr. Busbey, would be an estimate.

Mr. BUSBEY. What would the estimate be to the best of your knowledge?

Dr. DAFT. You mean, of course, both intramurally and extramurally?

Mr. BUSBEY. On the whole problem; yes. I want to get something in relation to the total appropriation.

Dr. DAFT. I am afraid, Mr. Busbey, that the amount actually spent in this area is small in comparison to the seriousness of the problem.

In the field of nutrition as a whole we are spending probably 15 percent of our appropriation.

Dr. SHANNON. There is one thing. There are studies on obesity in the other categorical institutes. The Heart Institute has a sizable research activity attempting to relate dietary intake, gain or weight loss, and facilities to handle fat by the body as part of this study.

I think if you would like a figure we can give it to you from a number of institutes. We will have to add them up.

Mr. BUSBEY. The thing in my mind was that you mentioned it as a major nutrition problem sufficiently prevalent to impair the health of one-quarter of the national adults. One-quarter of the national adults is a large percentage, and it just seemed to me if it was that serious perhaps we ought to be spending a sizable portion of these funds on it.

Dr. SHANNON. Much research in obesity is incidental to other research. For instance, overweight is an important factor in many diseases such as diabetes and heart disease. Obesity, which is a contributing factor in these diseases, is an allied factor in many diseases although the study is not isolatable as an obesity project. So I think the figures we can give you will not be too meaningful without some explanation.

Dr. SEBRELL. We would be glad to make an estimate on this and submit it for the record, if you would like to have it.

Mr. BUSBEY. Yes, please.

Costs of research projects in obesity fiscal year 1954

Institutes	Direct research	Grants	Total
Arthritis	$75,000	$100,000	$175,000
Cancer		8,000	8,000
Heart	10,000	33,000	43,000
Total	85,000	141,000	226,000

Dr. DAFT. Maybe you would like to hear what we ourselves are doing in this field.

Mr. BUSBEY. Yes; I am sure it would be interesting to the committee.

Dr. DAFT. Our investigations are really in two parts. One is with animals and one which we are preparing to do is with humans. In the field of animal research, one of our investigators has been able to produce the fattest rats which anyone has ever seen merely by means of diet alone. It has been done previously by drugs and by damage to the brain and by other methods; but by confining rats in a small space and giving them a high caloric diet, he has rats which weigh as much as 2½ pounds. It is not that they are merely very large, but that they are very fat.

The reason for the investigator doing this work is to see what effect this has on degenerative diseases. Those rats will be studied to see if they develop an abnormal incidence of diseases to which both rats and men are subject. Then he will restrict their diet and see if by bringing their weight down to normal weight he can prevent the development of those diseases, or whether the damage is done once they get obese.

So I believe we will get some extremely valuable information in this way.

We have a metabolic chamber which is being built, which you probably have heard about, at the clinical center, in which we can study energy metabolism—how many calories an individual takes in and how they are expended. It has been believed by some people

that a great deal of obesity in this country is due not merely to a large intake of food, but also certain abnormalities in the way people take care of it.

We are very much interested in seeing whether people can eat a lot of food without becoming obese and whether people can eat very little food and still become obese. And studies will take place along that line just as soon as the metabolic chamber is completed.

Mr. BUSBEY. If there are no further questions, thank you very much.

REPLIES OF DR. FLOYD S. DAFT, DIRECTOR NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES TO QUESTIONS SUBSEQUENTLY SUBMITTED BY CONGRESSMAN FOGARTY

Q. What was the Truman budget estimate for fiscal year 1954?

A. Sir, the Truman budget estimate for fiscal year 1954 was $8,450,000.

Q. What was the revised Eisenhower budget for fiscal year 1954?

A. The revised Eisenhower budget for fiscal year 1954 was $4,976,000, Mr. Fogarty.

Q. How much did the House of Representatives provide in its bill for fiscal year 1954?

A. $5 million was provided by the House of Representatives in its bill.

Q. How much did the Senate provide for fiscal year 1954?

A. The Senate, sir, provided $7 million.

Q. How much did the appropriations law provide for fiscal year 1954?

A. $7 million was provided by the appropriations law.

Q. How much do you request now for fiscal year 1955?

A. Sir, the request for fiscal year 1955 is $7,270,000.

Q. There is a request for an increase of $352,000 for research in the clinical center in the arthritis and metabolic fields. Is that to operate the clinical center on the basis of a full year for the first time?

A. The requested increase of $352,000 for research in the arthritis and metabolic diseases field is to provide for a fuller utilization of our clinical center facilities. It is anticipated that the number of beds available to us will increase slowly during fiscal year 1955. This will necessitate increased supportive services. Complete activation of beds in the clinical center is not planned before fiscal year 1957. Fiscal year 1955, however, permits us, for the first time, to have a well-rounded program of clinical and laboratory research with sufficient beds to make a major attack on some of the most pressing problems in the field of arthritis and metabolic diseases.

Q. There is a cut, however, in extramural research grants and in research fellowships. Has anything of a medical nature occurred which would cause you to conclude that less research should be done in the medical schools and universities or that fewer fellowships should be provided for training specialists?

A. No, sir, nothing of a medical nature has occurred which decreases our need in these areas. Discoveries of the past few years have opened up areas of great potentiality, both in the field of arthritis and in the field of metabolic disorders, which need and deserve to be thoroughly developed. The need for training of both research and clinical scientific manpower is correspondingly great.

Q. Is it true that rheumatic disease is the number one crippler of our national population and that more than 10 million Americans suffer from it in one degree or another?

A. Yes, sir; that is correct. From a study made by the Public Health Service on the prevalence of arthritis and rheumatism in the United States and published in the Public Health Reports in June 1952, it is estimated that over 10 million individuals in this country are suffering from arthritis and rheumatic disease.

Q. Is it also true that post-Korea induction statistics from Selective Service show that 6 percent of all rejections were for rheumatic diseases?

A. Yes, sir. Figures collected by Selective Service and analyzed by the Arthritis and Rheumatism Foundation show that this is true.

Q. In this disease area, then, which affects over 10 million Americans, many of them in the draft-age bracket, wouldn't the requirement from a medical point of view be for more research and more fellowships rather than fewer?

A. The requirements from a medical point of view are great and they are increasing. It is hoped and anticipated that support on all fronts, including

research and more fellowships, will come from voluntary and other agencies as well as from the Federal Government.

Q. Are you familiar with the recent survey on research construction needs that was made as a result of a request by the Senate subcommittee?

A. Yes, sir.

Q. I am informed that in the field of arthritis and metabolic diseases the need was stated by 53 institutions for about $16.5 million and a previously stated need for 9 other institutions for about $7 million which makes a total of about $23 million. In spite of the fact that your budget does not request any funds to meet this construction need, do you think if the Congress appropriated funds that the research construction resulting from such an appropriation of funds would contribute to the whole research program and would hasten the day when we could solve and cure diseases in the arthritis and metabolic fields?

A. Should Congress appropriate funds for construction of research facilities in arthritis and metabolic diseases activities, this would no doubt stimulate research in these areas. The record in other disease areas, such as heart disease and cancer, in the past has shown that Federal funds granted for construction of research facilities have been more than matched by funds from other sources. Without question the progress of research would be greatly hastened as would the day of conquest of the rheumatic and metabolic diseases.

Q. Dr. Joseph Lee Hollander, chief of the arthritis section of the University of Pennsylvania, testified here last year. Dr. Hollander testified to a budget of $21 million for the Institute of Arthritis and Metabolic Diseases and he summed up by saying, "Even $20 million a year would not be enough to train sufficient physicians, staff and equip laboratories, and increase facilities for adequate care of victims, but it would be a start."

How, Doctor, how do you reconcile your figure of $7,270,000 for 1955 with the figure of Dr. Hollander who said $20 million would only be a start?

A. I must agree with Dr. Hollander that the needs in the fields of arthritis and metabolic diseases are greater than the presently available funds. I believe that the amount he mentions could be properly and profitably employed, for additional support is urgently needed to expand the research effort, to provide increased research and treatment facilities, and for the training of greatly increased numbers of physicians and other scientists to carry on the needed research and to provide for the application to the care of patients of such knowledge as research has produced and will continue to produce.

TUESDAY, APRIL 27, 1954.

NATIONAL MICROBIOLOGICAL INSTITUTE

WITNESSES

DR. VICTOR H. HAAS, DIRECTOR, NATIONAL MICROBIOLOGICAL INSTITUTE
DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. C. J. VAN SLYKE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
JAMES F. KELLY, BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE.

SALARIES, EXPENSES AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate		$5,738,000	$5,930,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		1,300	
Transferred to "Service and supply fund, Public Health Service," pursuant to Public Law 170		−18,000	
Adjusted appropriation or estimate (obligations incurred)		5,721,300	5,930,000
Comparative transfer from "Operating expenses, National Institutes of Health, Public Health Service":			
Direct obligations	$5,330,714		
Reimbursable obligations	202,929		
Total obligations	5,533,643	5,721,300	5,930,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
1. Grants for research and training:			
(a) Research projects	$1,945,174	$1,950,000	$1,950,000
(b) Research fellowships	149,512	117,000	117,000
2. Direct operations:			
(a) Research	3,086,007	3,454,300	3,664,000
(b) Other direct operations:			
(1) Review and approval of research and training grants	14,505	15,000	15,000
(2) Administration	135,516	185,000	184,000
Total direct obligations	5,330,714	5,721,300	5,930,000
Obligations Payable Out of Reimbursements From Other Accounts			
2. Direct operations: (a) Research	202,929		
Total obligations	5,533,643	5,721,300	5,930,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	462	459	459
Full-time equivalent of all other positions	30	8	8
Average number of all employees	477	430	435
Average salaries and grades:			
General schedule grades:			
Average salary	$4,282	$4,273	$4,273
Average grade	GS–5.3	GS–5.6	GS–5.6
Crafts, protective, and custodial grades:			
Average salary	$3,365	$3,389	$3,389
Average grade	CPC–4.5	CPC–4.6	CPC–4.6
Personal service obligations:			
Permanent positions	$2,094,048	$2,014,214	$2,035,614
Other positions	140,407	34,868	34,868
Regular pay in excess of 52-week base	6,724	7,154	7,154
Payment above basic rates	18,382	19,956	20,356
Total personal service obligations	2,259,561	2,076,192	2,097,992
Direct Obligations			
01 Personal services	2,140,676	2,076,192	2,097,992
02 Travel	37,931	53,200	55,000
03 Transportation of things	12,586	14,500	12,500
04 Communication services	15,945	21,350	21,550
05 Rents and utility services	13,827	19,000	19,000
06 Printing and reproduction	4,944	7,600	5,900
07 Other contractual services	42,355	23,100	32,100
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	743,871	1,074,200	1,240,000
08 Supplies and materials	197,808	328,200	344,600
09 Equipment	23,924	36,000	37,000
11 Grants, subsidies, and contributions	2,094,686	2,067,000	2,067,000
15 Taxes and assessments	5,003	7,100	6,900
Subtotal	5,333,556	5,727,442	5,939,542
Deduct charges for quarters and subsistence	2,842	6,142	9,542
Total direct obligations	5,330,714	5,721,300	5,930,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	118,885		
02 Travel	8,136		
03 Transportation of things	3,306		
04 Communication services	1,361		
06 Printing and reproduction	94		
07 Other contractual services	31,607		
08 Supplies and materials	36,931		
09 Equipment	2,517		
15 Taxes and assessments	92		
Total obligations payable out of reimbursements from other accounts	202,929		
Total obligations	5,533,643	5,721,300	5,930,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year			$491,300
Obligations incurred during the year		$5,721,300	5,930,000
		5,721,300	6,421,300
Deduct unliquidated obligations, end of year		491,300	521,300
Total expenditures		5,230,000	5,900,000
Expenditures are distributed as follows:			
Out of current authorizations		5,230,000	5,430,000
Out of prior authorizations			470,000

Mr. BUSBEY. The committee will come to order.

We have for consideration this morning appropriation requests for microbiology activities of the National Institutes of Health, and Dr. Haas, is here to justify the request.

GENERAL STATEMENT

At this point in the record, we shall insert Dr. Haas' prepared statement and then will proceed with the general questioning.

Mr. Chairman and members of the committee, the National Microbiological Institute was established as an institute in 1948. Its program of research on the infectious diseases, however, reaches back to the very beginning of the National Institutes of Health some 60 years ago, when it was known as the Hygienic Laboratory. Through the years, scientists in what is now the National Microbiological Institute have been leaders in research in the infectious and parasitic diseases and related problems.

Under its 1955 budget, the National Microbiological Institute will operate its programs on essentially the same level as that established by the 1954 budget. Certain readjustments will be made in the overall program to permit additional emphasis on clinical investigation.

The communicable diseases of man, measured in terms of aggregate illness and economic loss, constitute a heavy burden to the Nation. This is true despite striking medical advances which have been made in recent years against infectious illnesses. These gains have given rise to the widespread idea that the communicable diseases have been conquered and that our research efforts can perhaps be relaxed. Actually, however, the state of our knowledge, even in this field, does not remotely justify complacency. The common illnesses which disrupt our daily activities and lower our productivity as a Nation are still preponderantly those of microbial origin. Many of them are so poorly understood that we cannot even assemble objective figures on their actual prevalence.

In the broad area of communicable disease research and related fundamental investigations, the National Microbiological Institute conducts about 50 projects in direct operations and supports over 200 by grants-in-aid to scientists in universities and other research institutions. Only a portion of these activities can be covered in a brief report. These selected for review here reflect both the complexity of present-day problems and the degree to which progress is being made.

The general progress in the fight against human illness has perhaps been more rapid and extensive in the infectious and parasitic diseases than in any other area of medical biology. These gains are continuing, and vigorous research is taking advantage of constantly accumulating knowledge. In some respects, the most stimulating of all our recent attainments in microbiology is the realization that advances in this field are contributing significantly to progress in areas beyond those of the communicable diseases.

THE COMMON COLD

On any average day in the winter, more than 5 million persons in the United States are absent from work or school because of illness. Nearly half of them have respiratory diseases—afflictions of the air passages or lungs. One of these respiratory illnesses—the common cold—is so prevalent that the average American experiences six attacks from it each year. The common cold alone costs us over $2 billion a year in lost productivity and medical expenses.

Medical scientists have tried repeatedly to solve the problem of the common cold. During more than 40 years, various investigators have recorded initially encouraging progress, but failed to achieve their goals of prevention or cure. The National Microbiological Institute has been active in some of these studies for nearly a decade, both in direct operations and in grant-supported research. Like all scientists who have entered the field, both in the United States and abroad, those in the Institute and those supported by it have had some success, but until recently the technical difficulties arising after the initial progress have imposed almost insurmountable limitations.

Now there is reason to believe that the earlier barriers to substantial achievements are being penetrated. The adaptation of tissue culture methods to growing all sort of viruses under almost routine laboratory conditions provides the tools which have been lacking in the past. During the current year, a scientist in the

National Microbiological Institute has demonstrated a new virus in cultures of human adenoid tissue, and has shown that this virus causes a mild illness in human volunteers. This is not the common cold virus, but it comes from that part of the human air passages where the common cold often begins, and both the virus and the host cells grow readily in test tubes. Concurrently, scientists in the NMI, and a university scientist supported by an NMI grant, have worked together to standardize the methods of evaluating the common cold in human volunteers.

The total result is that now we have promising new laboratory tools and a sound background of experience with both the naturally occurring and the experimentally induced common cold in humans. Highly competent investigators—some within the Institute, others in universities who receive NMI grants—are exploiting these new leads. Progress in the long battle against the common cold appears more likely now than at any time past.

INFLUENZA

Influenza is another respiratory disease of high prevalence. It comes like grass fires in the prairies, in flaring outbreaks which arise suddenly, spread rapidly, and usually die out abruptly after involving variable sections of the population. Sometimes these outbreaks become nationwide or even worldwide, just as prairie fires may coalesce to form conflagrations. Deaths in recent years have been limited largely—though not exclusively—to the aged and debilitated, but absenteeism frequently cripples industrial and commercial activities, closes schools, and creates serious military problems. And there is always a potential threat of such a devastating pandemic as that of 1918–19.

Influenza spreads so rapidly, once an outbreak has started, that measures such as isolation and quarantine are without value. Since the influenza virus is easy to isolate, identify, and grow in the laboratory, vaccines can be made and have been in use for some years. Unfortunately, the viruses which cause influenza (there are several different types) change from year to year. A vaccine prepared with a virus prevalent in 1 year is less effective against the strain which may appear in following years. Also, vaccines thus far available have given only temporary protection, even against the strains of viruses from which they are made.

The current problems in influenza are: (*a*) to maintain an alertness as to the strains and types of virus prevalent in the world and in the United States at all times, (*b*) to estimate as far ahead as possible whether epidemics are likely to develop, and (*c*) to provide an adequate vaccine in time to be effective. The National Microbiological Institute is taking a leading role in the solution of all these problems.

We serve as the United States central coordinating agency for all influenza information collected as part of the World Health Organization's program, which has been functioning successfully for several years.

We collect and test the most important new types and strains of virus as they appear in outbreaks, in order to assure that commercial vaccines include those most likely to be effective.

We are testing in several communities an influenza vaccine which has been strengthened by addition of an adjuvant. Results thus far indicate that immunity stimulated by this vaccine is more effective and lasts longer than that following administration of ordinary influenza vaccines.

OTHER RESPIRATORY AND RELATED ILLNESSES

Included in the broad term "respiratory diseases" are many illnesses other than the common cold and influenza. Some of these—like the pneumonias, and the virus and rickettsial infections of the lungs—are definite entities. Others are as yet poorly understood in almost every respect. Still others which appear related to this broad group because of seasonal prevalence, initial symptoms, and manner of spread in households, may not be true respiratory diseases. Yet in medical as well as lay usage, these illnesses are usually grouped as causes of absenteeism, and from this point of view there are valid reasons for studying them together.

The National Microbiological Institute currently is investigating the prevalence, patterns of spread, and possible causative agents involved in this broad group of illnesses in several Eastern communities, as part of the influenza vaccine studies. We have intitiated a similar study in a Western community where excellent laboratory skills and facilities are immediately available. And we are supporting by a grant a university group which is studying these illnesses in a large number of households which are under constant medical surveillance as part of the medical student's curriculum.

POLIOMYELITIS AND POLIOMYELITIS VACCINE

The new laboratory developments of tissue culture have made it possible to cultivate the virus of poliomyelitis in sufficient quantities for producing vaccines against this disease. It is likely that such vaccines will soon be tried out on a large scale. This Institute is already cooperating with the National Foundation for Infantile Paralysis in conducting and evaluating safety tests in the laboratory on vaccine produced for these trials. If preliminary results justify commercial production and marketing of vaccines against poliomyelitis, we shall have to establish standards of safety and potency in accordance with our responsibilities under the Federal Biologics Control Act. Our scientists are currently working out methods which can be utilized for assuring the public of a safe and potent vaccine.

Until the value of poliomyelitis vaccine can be established, it is likely that gamma globulin will continue to be in great demand as a temporary preventive against paralysis. During the current year, scientists in the National Microbiological Institute have developed methods for testing the safety and potency of this product, and it is expected that such methods will be useful in continuing to make available an adequate type of globulin in time to meet public needs.

Even if poliomyelitis vaccine eventually proves to be effective for general use, it would be most unwise to assume that research on this disease should be discontinued. All vaccines—even the very best—have numerous disadvantages—and it is not logical to expect that a poliomyelitis vaccine, however effective, will give us complete and permanent mastery over the disease. Studies on methods of spread, reasons for age selection, causes of severe outbreaks, and differences in the severity of paralysis in various patients are as important now as they ever were. The new laboratory methods—particularly tissue culture—indicate that more progress is possible now than ever before. Scientists at the National Microbiological Institute have made significant contributions to our knowledge of poliomyelitis over the years, and are currently using their skills and facilities in attacking problems of the sort indicated here.

OTHER VACCINES

Poliomyelitis vaccine is as yet of unknown value in respect to general use. One of the most effective of all vaccines—and the one longest in use—is that against smallpox. Even with such a superb vaccine, we still have problems, one of the most troublesome being maintenance of potency under conditions where refrigeration is unavailable or unreliable. During the current year, scientists at the National Microbiological Institute have taken a leading role in the development of a dried smallpox vaccine which promises to be of great value under rural, military, and primitive conditions.

Other valuable immunizing agents which have been in general use for a long time, but which still appear to fail at times, are those against whooping cough and diphtheria. Both are under study at the Institute, and during the current year a standard test of potency for whooping cough vaccine has been devised and put into use. This is the first time that any nation has succeeded in developing a standard requirement which this vaccine must meet, and there is reason to expect that this achievement will reduce the number of failures of whooping cough vaccine. A new method for testing diphtheria vaccine, with a similar objective, is currently under investigation.

TOXOPLASMOSIS

Rapid progress in prevention and treatment of infectious and parasitic diseases has left behind many areas of difficulty which, though bypassed, must eventually be dealt with in our national program of research, which aims to reduce human illness, suffering, and death. An example is the condition known as toxoplasmosis. Until 1939, such a disease was unknown; recent research—in which NMI scientists have played a leading part—shows that infection is widespread in the United States, in a variety of wild and domestic animals as well as humans. It accounts for crippling and often fatal illness in infants, and for blindness in adults, to an extent not yet fully understood. In spite of disastrous effects in many such cases, there appear to be numerous instances of infection without known disease, though if the apparently healthy person has acquired infection during pregnancy, the infant can be gravely affected. No entirely satisfactory treatment is as yet known, but scientists in the Insuitute have developed one that is at least partly effective and the best discovered thus far.

RELATIONSHIPS OF INFECTIONS AND CANCER

Laboratory studies on toxoplasmosis and on malaria have developed evidence indicating the existence of some intriguing relationships between these infections and a form of cancer of mice classified as leukemia. A drug called daraprim, which has been shown by NMI scientists to be very effective against malaria, is also the most active of all drugs thus far tried against toxoplasmosis. Since several antimalarial drugs (tested by scientists of NMI and of the National Cancer Institute, working together) possessed activity against mouse leukemias—just as the antimalarial daraprim does against toxoplasma—both the malaria organism of mice and the toxoplasma were studied in leukemic mice. Each of these parasites prolonged the life of such mice.

These discoveries contribute to our gradually evolving efforts to comprehend the uncertain but potentially important relationships between cancer and infection. It has been known for several years that a number of viruses interfere with growth of certain tumors. The work here alluded to extends our knowledge of this sort of interference. Prospects for futher development of these areas appear brighter because of the current advances in tissue culture of both infectious agents and human cells, normal as well as tumorous.

Grant-supported research has shown that certain viruses seem to behave as if they are carried by the genes which determine particular hereditary characteristics of the host (the viruses studied thus far affect only bacteria). The relevance of these particular discoveries to cancer is so obvious that support of the work has properly been shifted from the Microbiological Institute to the Cancer Institute. Microbiologists within the NMI, and those supported by NMI grants, are currently exploiting other leads in this broad area as thoroughly as present skills and techniques permit. Animal tumors are known which are definitely caused by viruses: one of these, a fibroma of squirrels, is under investigation by NMI scientists interested in relationships between infections and cancer. Interesting results thus far have included experimental transmission of these peculiar viruses by mosquitoes and fleas.

The ultimate significance of such observations in microbiology which overlap the field of cancer investigation cannot be assessed until much more knowledge is acquired. Certainly it can be stated that the meticulous and painstaking studies which are currently under way should be developed and extended as vigorously as possible.

INFECTIONS AND CHRONIC DISEASE: CLINICAL STUDIES

Whatever may eventually prove to be the relationship between infections and cancer, there is no doubt that many diseases generally regarded as chronic are either of infectious origin or have an important infectious component. Examples include rheumatic fever, and associated diseases related to infection with the streptococcus, asthmatic bronchitis, ileitis and colitis, undulant fever, and tuberculosis. For the first time, our program in the Clinical Center is providing us with the opportunity to study these illnesses in the host with whose welfare we are concerned—the human being. In many of these conditions, study of the experimental disease in animals is either impossible or unsatisfactory. Admission of suitable patients in proximity to adequate laboratory skills and facilities is now making it possible to investigate the poorly understood causes of many diseases which fall into this broad category, and to improve the reliability of methods of diagnosis and treatment.

An example is amebiasis, a disease caused by a protozoan organism (ameba). The organism itself is widespread in some areas of the United States, being found in as many as 20 percent of the population, often without evidence of specific illness in the persons involved. On the other hand, some individuals develop severe and even fatal illness attributable to this organism. From time to time outbreaks of epidemic proportions occur; while attacks of acute illness due to amebiasis cause severe distress, many instances of long-term, intractable infection occur, and often produce invalidism and secondary neuroses.

During the current year, NMI scientists have discovered that the ameba fails to produce disease in guinea pigs reared in such way that they have no other germs present in their bodies, while litter-mate guinea pigs with "normal" bacteria in their intestines acquired fatal disease when inoculated with the ameba. They have also found that liver disease develops in infected guinea pigs; since this is the most serious complication of human amebiasis, it is a significant fact that we are now able to study the condition in the laboratory animal. Along with this progress in the laboratory, admission to the Clinical Center of patients with

amebic disease provides the opportunity to determine the factors which influence the course of infection in the human.

In addition to long-term illnesses such as those mentioned, there are others whose causation is still so poorly understood that it is as yet unknown whether infection, chronic poisoning, or neoplastic factors are involved. An example is the disease sarcoidosis, which can be studied only in the human, and is currently under investigation in our clinical center.

BASIC RESEARCH

The course of human disease depends upon the constantly changing relationships between microbial parasites and their hosts. Knowledge of these relationships is essential to our ultimate attainment of satisfactory control and prevention of infectious and parasitic disease, and will undoubtedly contribute also to our battle against other illnesses. Research areas which have been bypassed, or toward which only a portion of our efforts have been addressed, include such facets as metabolism of parasitic microorganisms, immune response of the infected host, and mode of action of drugs and antibiotics.

To medical scientists, these are the areas which are of greatest challenge and wherein lies the greatest promise today, and the Microbiological Institute is devoting an appreciable portion of its skills and resources to them.

When we know how a virus can distort the amazingly intricate chemical and physical processes that go on at incredible speed within the ultramicroscopic confines of infected cells, we shall be a long way on the road to understanding the meaning of life itself.

Knowledge of how a drug upsets the metabolism of a parasitic microorganism will eventually make it possible to predict and produce preventive and curative agents on almost a mathematical basis.

Understanding of the way in which the infected host can manufacture antibodies, where it stores them, how it calls them out in response to challenge, will provide us with the means for making better, safer, and more quickly acting vaccines and antisera.

Answers to these problems require the most assiduous attention to countless details: They will not come easily nor in response to superficial investigations. But progress has been steady in recent years, and scientists in the National Microbiological Institute and those supported by our grants are making significant contributions.

Basic research cannot be categorized. The scientist who seeks to unravel the mysteries surrounding natural phenomena cannot predict when or how his discoveries will be used in the struggle against disease. But just as a brickmaker knows his product will someday be a part of a house or a wall, the researcher in basic science knows that the facts which he uncovers will be built into our total structure of knowledge. Just where each will fit may never be clear to him, but he knows that at some time they will be used. Over the years, the investments we make in truly fundamental research will be the ones that will pay real rewards in permanent victories over human illness. What Francis Bacon said in the 16th century about the delay in progress "because these fundamental knowledges have been studied but in passage, and not drunk deeper of" is as true now as it was then.

This statement has discussed work in many areas where children are particularly involved: respiratory illnesses, poliomyelitis, whooping cough, diphtheria, toxoplasmosis, and the streptococcal infections (including rheumatic fever) which are now the subject of clinical investigations. Infants and children, like all immature animals, have less resistance to infections than adults; and while the discoveries of recent years have saved many lives among the younger members of our national community, the great bulk of infectious and parasitic disease still occurs among the younger-aged persons. All too often such diseases leave residual damage which results in invalidism, chronic illness, or sickness appearing in later years, sometimes long after the initial infection has been forgotten. The program of the National Microbiological Institute places strong emphasis on these important and often distressing afflictions of childhood.

Mr. BUSBEY. Dr. Haas, your request for microbiology activities for fiscal year 1955 is $5,930,000?

Dr. HAAS. Yes, sir.

Mr. BUSBEY. That is an increase of $192,000 over the amount appropriated for fiscal 1954; is that correct?

Dr. HAAS. That is right.

COMMON COLD

Mr. BUSBEY. On pages 2 and 3 of your statement you discuss the common cold. I forget at just what point it was in the hearings, but we had a little discussion of that problem last year. What are the recent developments in this field, and what progress has been made in the last year?

Just because it is so common all of us are interested in it. It is not a matter of 1 out of 5, or 1 out of 3 who are involved, but it is almost 100 percent.

Dr. HAAS. Yes, sir. We certainly are all concerned about the common cold, and I am glad to say that we feel that some substantial progress has been made during the past year, centering mostly upon our improvement in the use of tissue culture of viruses.

We now are able to grow many normal tissues, and in this instance it is important to point out that we can grow human adenoid and tonsil tissues which contain in their natural state some of the virus materials residing in that part of the human body, virus material that would naturally be expected to have relationship to diseases transmitted through the respiratory tract.

Our scientists have made now over 70 isolations of viruses from human adenoid and tonsil tissue from people who at the time appeared well, but some of those viruses have since been related to respiratory diseases, both by our scientists and by others.

Mr. BUSBEY. Doctor, enlighten me a little bit. We use the word "virus" so much that I would like to know just what a virus is.

Dr. HAAS. Well, a virus is a very small agent which is, so far as we know, incapable of independent existence, but which must live within a cell, and which under certain circumstances produces in that cell abnormalities which lead to disease, but which under other circumstances may reside in the cell and remain inapparent, or silent for long periods of time.

It is incapable of performing by itself all of the necessary functions of life. So, it is an incomplete organism in the sense that its living process must depend upon certain things in there being supplied by the cell in which it lives.

Mr. BUSBEY. Well, it seems as though nowadays that as soon as a person becomes ill it is said that they are attacked by a virus, and we didn't hear that term very often in years past.

Dr. HAAS. That is quite true, sir, but that is probably because our knowledge of the virus has increased very rapidly within the past few years.

In years past, even when I was entering medicine, there was considerable doubt in people's minds as to whether viruses really existed, just as, I suppose, there was doubt about the atom at one time.

Our equipment and our methods of dealing with disease agents have developed so rapidly within the past decade that we now are able actually to see these things, and to prove their presence by incontrovertible means, and we know now that they are responsible for many things, where in the past, we could not recognize their existence.

Mr. BUSBEY. Pardon me, Doctor. Will you please proceed with your statement?

Dr. HAAS. With respect to the common cold, our scientists have found these numerous strains of viruses, many of them in people who

did not appear ill, but subsequently some of these same viruses, or viruses very similar to them, have been recovered from people with colds, and from people with other respiratory diseases that are not colds.

By that, I mean the various pneumonia-like diseases, or the temporary febrile illnesses associated with respiratory symptoms.

We find that when people have these illnesses they develop antibodies to some of these viruses. So, that is presumptive evidence that the viruses have been implicated in the causation of some of these diseases.

That work has been done by our own scientists, and it has been confirmed by scientists elsewhere.

So, we think now for the first time we have a practicable tool which will enable us to get viruses out of people which we have never been able to get out before, and to study them in the laboratory without the very cumbersome resort to human volunteers every time a virus needs to be isolated, and studied.

I think that has opened the door to possibilities that we never have been able to reach up until the last year.

Mr. BUSBEY. Does there seem to be any hope of getting something developed to inoculate people against the common cold?

Dr. HAAS. That is certainly the hope of every scientist who goes into this field. How far away that might be, it is impossible to say at this time, but certainly we have taken a big step along that road.

CENTRAL COORDINATING OF INFLUENZA INFORMATION

Mr. BUSBEY. At the bottom of page 4 of your statement you state, and I quote:

> We serve as the United States central coordinating agency for all influenza information collected as part of the World Health Organization's program, which has been functioning successfully for several years.

Just what, in detail, do you do in connection with that, Doctor?

Dr. HAAS. There are a number of laboratories throughout the United States which volunteer to furnish us with information as to the prevalence of influenza in their communities.

So, if influenza appears in California or Tennessee, those laboratories let us know that there is in the locality a disease which appears to be influenza. They also undertake to get material from patients so that if there is a possibility of isolating the virus and identifying it, that is either done locally by that laboratory, or it is sent in to Dr. McGill at Long Island University, for further study; or if blood is taken for serological tests, those can be done locally, or can be done by one of the larger laboratories which collaborates in the program.

In that way we have two things: First, information of the outbreak and, second, material—either viruses themselves, or serum—for study and identification.

Mr. BUSBEY. Where do those results go?

Dr. HAAS. Those results come to us, sir, and then we send them in turn to the World Health Organization at Geneva, which reciprocates by sending us information which they have collected elsewhere in the world.

INFLUENZA VACCINE

My statement refers to the importance of influenza vaccine.

If I may, Mr. Chairman, I would like to show here a chart which illustrates the efficacy of some of our recently developed vaccine.

There are two lines on this chart; one is black and one is red. The red line indicates the occurrence of influenza in a group of people who received an older type of influenza vaccine, and the black line indicates influenza in those who received an improved type.

As you can see, there was a sharp peak there in January and February among the people who had received the older vaccine, and the people with the newer vaccine were protected against that particular sharp outbreak.

The attack rates are given there as a total of 33 percent for those who received the older type vaccine, and 24 percent for those who received our newer vaccine.

This is important, sir, because influenza is such a rapidly spreading disease, and when it does come, we think that vaccine in advance is the only practical means of control.

Perhaps, if I may extend my previous remarks about the World Health Organization, the virus of influenza is one which changes from year to year, so that it is very important to us to keep abreast of all new strain developments. That is, to get each year the actual viruses which are responsible for outbreaks as early in the epidemic as we can do so. Of course, our World Health Organization program enables us to get those viruses not only from the United States but from anywhere in the world where outbreaks are going on, and where the program is in effect.

POLIOMYELITIS VACCINE

Mr. BUSBEY. On page 6, you state as follows: and I quote:

> During the current year, scientists in the National Microbiological Institute have developed methods for testing the safety and potency of this product, and it is expected that such methods will be useful in continuing to make available an adequate type of globulin in time to meet public needs.

That statement pertains to polio, and while that is not exactly the wording of the statement which was presented by the Communicable Disease Center, it is very similar, and I would like to raise the question with you, Doctor, as to the possibility of your activities overlapping those of the Communicable Disease Center, and the possible advantage of combining these activities of the National Microbiological Institute with the similar Communicable Disease Center activities.

What is your thinking on that?

Dr. HAAS. This is, perhaps, an excellent example of the way in which the Microbiological Institute and the Communicable Disease Center each can contribute according to its particular ability to an important problem.

When it was decided that gamma globulin would be produced and released for use against poliomyelitis, it became apparent that there were two important steps to be taken:

One, we must make certain that the gamma globulin applied was safe, and that it would actually have some antibodies against polio-

myelitis; it seemed that the experience and the competence and the professional skill in the NIH could best deal with that particular phase of the problem.

The other aspect of the problem was to evaluate the effects of gamma globulin as it was actually used during the polio season. That is, to accumulate information on the occurrence of poliomyelitis in those who had and those who had not received the gamma globulin, and to analyze that information and to make it available for future guidance.

That seemed to be within the particular province of the Communicable Disease Center, and that is what they did. They undertook to accumulate that information, and did so, and that culminated in the publication of the committee report a month or so ago which enabled us to see how the product actually performed in the field. So, the work was divided in the planning stages. We did the laboratory testing, and they did the field evaluation.

SIMILARITY TO CERTAIN WORK AT COMMUNICABLE DISEASE CENTER

Mr. BUSBEY. Well, it may not be confusing to other members of the committee, as it is to me, but there seems to be sure a close relationship between some of the work of the two divisions that it just seems as if there should be some way of combining this under one head.

In the statement of the Communicable Disease Center, they stated in regard to gamma globulin that they conduct a national gamma globulin evaluation center, with related field studies, for determining the value of the use of gamma globulin in the prophylaxis of poliomyelitis.

In the last sentence on page 6 of your statement you mention studies on methods of spread. The Communicable Disease Center justifications say that they are conducting research to gain more knowledge in the incidence, distribution and mode of spread of the disease.

I just do not know how you keep these two things separated.

Dr. HAAS. Well, in regard to this particular phase—this phase to which you refer to as mode of spread—we have a problem for which we have no answer at the present time.

Research in the past has failed to throw adequate light upon this problem, and we feel that all possible information must be gathered, and that in the course of their primary objectives, which are the study of the epidemics and which involve working with the State authorities in epidemics, that in the course of that work it certainly is highly desirable that they gather and analyze all possible information on the spread and development of epidemics and, on the other side, in the course of our work, which is primarily in the laboratory, it is certainly desirable that as information comes to us from the field that we attempt to relate that information to our laboratory findings.

We do not actually go out and study the epidemics in the way that they do. Our effort has been to acquire material from certain selected epidemic areas—material from humans either having the disease or exposed to it—and to attempt to isolate the virus from that material and then to see if there is a relationship between the particular characteristic of the virus and the way in which that particular outbreak developed.

Mr. BUSBEY. Why should not this work that is so closely related be done in one organization where you would be working together, rather than having part of it down in Atlanta and another part of it up here at Bethesda?

Dr. HAAS. This work, of course, can only be done by men with proper training and initiative and scientific background.

Mr. BUSBEY. Those men could do the work in Atlanta, it seems to me, as well as at Bethesda or New York or any other State.

Dr. HAAS. The men who come to Bethesda are men who are experienced in laboratory research, and who are oriented to a certain research approach to the problems, and who are dedicated to investigate all of the complicated details which are involved in the natural problems of infection and the relationship of the host and the parasite.

They are essentially by their nature and by their training removed from the desire to attack the problem at its level of practical application. That is not what they have trained themselves for, and that is not the way in which they are going to work in their scientific career.

Mr. BUSBEY. If they worked in Atlanta, I do not see where that would conflict with that outlook. They could work in their research down there. It just seems like the practical way to do this work would be to put these closely related activities in the same organization.

Dr. SHANNON. Mr. Chairman, I would like to throw in a sidelight on this discussion, if I may, please.

Mr. BUSBEY. Surely.

Dr. SHANNON. The scientists in Atlanta, working under Dr. Langmuir in the field of epidemiology, have a characteristic that makes them very valuable that is not obtained in similar types of scientists at NIH. This year they are working on polio, whereas last year they worked on polio and in the past 4 or 5 years they have worked on such things as equine encephalitis, and on a variety of infectious diseases such as diarrheal diseases, hepatitis, and the like.

The epidemiologist is a scientist who has certain tools that are applicable to the study of the spread of any disease and, in a program that is primarily oriented toward State service, which is primarily done with States in collaboration with the State health office, it seems advisable to have that type activity in a program of the Bureau of State Services, where the total orientation of the group is toward service to the States.

As epidemics develop, or as new tools develop, such as gamma globulin, which developed last summer, and it will be polio vaccine this summer, unique opportunities to study the mode of spread of the disease are uncovered, and Dr. Langmuir possesses a group that can be utilized to study that highly effectively. If he were taken under Dr. Haas' operation and lined up by the side of Dr. Haas' scientists, studying polio, that would remove a general resource from this country which we feel is invaluable. That is one of the factors which leads to considering it essentially as a resource which should be separated from the longer term research of the Microbiological Institute.

Mr. BUSBEY. Doctor, while we are on the subject of poliomyelitis, what is the basis for this controversy which is going on in regard to the vaccine tests which were supposed to start this week? We hear many comments about the Salk vaccine and what it will accomplish, and, on the other hand, we hear commentators like Walter Winchell appearing on television and throwing the fear of God into everybody for ever thinking of letting their children participate in this program.

Would you care to comment on that?

Dr. HAAS. I would be glad to, sir.

I have no record of Mr. Winchell's statements, so I cannot analyze them for you, but I would be very glad to tell you the facts that I have in my possession.

Mr. BUSBEY. Well, I do not have his statement verbatim, but I can tell you that it was a statement that would certainly discourage parents from letting their children participate in any program of this kind.

Dr. HAAS. Well, Dr. Salk began several years ago to study the possibility of growing the poliomyelitis viruses in tissue cultures in quantity, and then inactivating that virus so that he could produce a vaccine which would protect children without infecting them.

He has, himself, tested this vaccine on several thousand children who have volunteered—whose parents have permitted them to take part in the study—and by last year he had reached a point where he felt that his results justified testing the vaccine against actual polio exposure under natural conditions on a large number of children.

The National Foundation for Infantile Paralysis was asked to support this study, and before any decisions were made the Foundation availed itself of scientific advice in the form of a vaccine advisory committee.

This committee is composed of men who are unquestionably capable, and very eminent in science and public health. Those men have had access to all of the data—all of the data that exists—and to all possible interpretations of these data. They are men who are not only capable, but they are men who are accustomed to taking responsibilities seriously.

Having had unlimited opportunity to study the facts, and to hear all possible interpretations of those facts, the members of that committee have recommended that, subject to certain conditions, the wide-scale testing of the Salk vaccine be carried out.

We feel that the committee is qualified to come to a judgment of this sort, and we believe that the Foundation is justified in proceeding in accordance with the recommendations of this group of scientists.

Mr. BUSBEY. Under whose jurisdiction did Dr. Salk develop this vaccine? Was he working under a grant, or fellowship from the National Institutes of Health?

Dr. HAAS. No, sir; he is a member of the faculty of the University of Pittsburgh, and his research has been supported by the National Foundation.

Mr. BUSBEY. Have any of the research funds which have been appropriated by Congress gone into his research?

Dr. HAAS. The funds appropriated by the Congress have participated to the extent that our Laboratory of Biologics Control has been 1 of 3 laboratories for testing the material before it is released.

Dr. SEBRELL. Mr. Chairman, could I make a statement at this point?

Mr. BUSBEY. Dr. Sebrell.

COOPERATION WITH NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

Dr. SEBRELL. I was going to add that we have worked very closely with the National Foundation for Infantile Paralysis in a cooperative way, just as we do with the other foundations in the various medical fields of this country.

The Foundation has supported research like that of Dr. Salk, and where they have provided the bulk of the financial support for the research on poliomyelitis in this country, we have not seen any necessity for us to enter into this particular field.

As you well know, we try not to compete with any of the foundations, but rather to work cooperatively with them so that our funds do not get into a competitive situation, but into a complementary and supplementary way to assist.

Mr. BUSBEY. I was hoping that we might be able to report to our colleagues on the floor of the House that the money which this committee recommends that they appropriate was responsible for the development of this vaccine.

Dr. SEBRELL. I think we have to give credit for this to the National Foundation for Infantile Paralysis.

EARLY POLIO RESEARCH

Dr. SHANNON. Mr. Chairman, you might like to hear about the beginning of what we call modern polio research which, in fact, did start at the National Institutes of Health.

I do not know the details of the story, but perhaps, Dr. Haas could supply them.

Dr. SEBRELL. I would like to have Dr. Haas mention the work of Dr. Armstrong.

Dr. Armstrong's work laid the foundation for the present research in this field.

Dr. HAAS. I am glad to have the opportunity to discuss that.

This goes back to about 1939. Up until that time the only work that could be done with the viruses which cause poliomyelitis had to be done on monkeys, because no other laboratory animals had been found which were susceptible to the disease.

Dr. Armstrong in that year was successful in transferring a strain of this virus to a little rodent called the cotton rat, and from the cotton rat that virus was transferred to the white mouse—the ordinary laboratory mouse which is produced in virtually unlimited quantities.

So, the research which in the past had almost come to a standstill because of the expense and difficulty of handling monkeys in quantity, suddenly surged forward because for the first time now it was possible to deal with the viruses in a small animal, cheap and easy to handle, and available in quantity.

At about that same time the National Foundation came into being as a voluntary organization, dedicated to making an attack upon this disease, and the two things worked out very well together: Our

scientists—Dr. Armstrong—contributing the discovery which was really the wedge, scientifically, in getting into this problem, and the Foundation contributing the financial support which has enabled scientists to follow through and to exploit the situation as it was opened up at the National Institutes of Health.

Dr. SHANNON. There is another fact, Mr. Chairman, that might be brought out, which is the basis of the present vaccine, and that is the ability to grow virus on tissue culture. One of our scientists in the National Cancer Institute, Dr. Earle, has been in the forefront of the development technique of tissue cultures. Without his contribution over the past 10 or 15 years, it is quite possible that a tissue culture vaccine would not have been available.

I do not want to minimize in any way the contribution made by the National Foundation, but I think this is another example of how a basic discovery finds application at the end point of a long series of studies.

I think Dr. Earle should feel very proud of himself and of his work in tissue culture—work which contributed to the use of this technique in the development of the vaccine.

Mr. BUSBEY. I appreciate the fact that Dr. Earle has made a very valuable contribution.

I only hope that some of the claims that are made over the radio, in raising the funds for the National Foundation this year, in regard to what the Salk vaccine will do will be proven correct, because I think it would be a terrible thing if something should happen that it did not meet the high expectations of everyone. I know in listening to the appeal over the radio they claimed that this is the thing that is going to solve the poliomyelitis problem and they left no room for doubt, in their appeal to the people for funds to carry on this work.

I am 100 percent in favor of their work, I just hope that nothing will happen that will indicate they may have "oversold" this vaccine.

Dr. SEBRELL. Well, we all, of course, hope so, too, Mr. Chairman, and the work is at a point where there are no more practical laboratory tests that anyone can see that will answer the problem and the only way to answer it is to do just what is being done now, and I think everyone has made it clear that this is a study to determine whether this vaccine will provide the immunity that everyone hopes it will.

There is no way to find out except to try it, and see. However, I think many virologists feel as Dr. Haas does, and perhaps he could express an opinion upon this.

Certainly, if this particular vaccine does not turn out to be so efficacious or as powerful as we would like it to be, the groundwork is laid here on which we can see that if this is not it, there will, in all probability, be one before too long.

Mr. BUSBEY. I think your approach is the correct one, however, you have put into the discussion what we call in the investment business a hedge clause, but the claims on the radio by the people who ask for funds did not have a hedge clause. They were rather positive. That was what concerned me a little bit.

Dr. HAAS. Mr. Chairman, may I add one more thing on this subject?

Mr. BUSBEY. Yes, sir.

Dr. HAAS. I believe we should keep in mind that nobody has said that, even if this comes up to our greatest hope, this would be the

final answer to the problem of poliomyelitis. We are going to need research on poliomyelitis for quite a long time yet, and we would expect that in the course of time, even if this vaccine is good, that ultimately we should have better ones.

So, we cannot be surprised if during the coming years there are continuing requests for financial support, and we need not feel that we now have the problem in hand, where we can drop it.

Mr. BUSBEY. There is no doubt about that. I do not think anyone would question that at all.

TUBERCULOSIS RESEARCH

On page 3 of your statement you refer to research on tuberculosis in children. There is an appropriation for control of tuberculosis under which $875,000 is requested for research. What is the difference between these activities, and, coming back to the question which I ask so often, why could not these be carried on under one roof? What is the advantage of carrying them on separately?

Dr. HAAS. Well, in regard to tuberculosis in children, this grant-supported research is carried out, of course, by scientists who are interested in tuberculosis from the standpoint of research scientists.

They are not, in their particular interest, concerned with such things as case finding, or control, or hospitalization, or segregation of cases as a means of control of tuberculosis.

They are studying tuberculosis in patients—in identifiable patients under ward and laboratory conditions—where very detailed studies can be made on selected people and small samples.

The program to which the other request refers is, of course, concerned primarily with the finding of new cases and the prevention of tuberculosis in the population.

Dr. SHANNON. Mr. Chairman, these are research grants to non-Federal scientists, as contrasted to the work covered in the other appropriation, which is our own direct research. This deals with the medical aspects of tuberculosis in university hospitals, and how it can be studied there, as opposed to the field type of study conducted by the Bureau of State Services.

SECTIONAL LABORATORY RESEARCH

Mr. BUSBEY. Is the so-called sectional laboratory research still being carried on under this appropriation?

Dr. HAAS. Yes, sir.

Mr. BUSBEY. Would you describe that activity?

Dr. HAAS. That is concerned with research in microbiology as it relates to infectious diseases that are likely to appear as epidemics or that could be brought in from abroad, and it is designed primarily to improve methods of diagnosis and methods of identification which would enable us to accomplish some of the things that we can accomplish now, but in much shorter time, with greater accuracy, and with results that could be applied more quickly, should such a problem come into being.

Dr. SEBRELL. Mr. Chairman, may I go off the record for just a moment?

Mr. BUSBEY. Surely.

(Discussion off the record.)

Dr. SEBRELL. Mr. Chairman, if the committee would like to have something on this on the record, we would be very glad to try to prepare a statement that we could clear which could be offered to you for submission in the record.

Mr. BUSBEY. I think it would be desirable if you will prepare such a statement.

(The statement referred to follows:)

SECTIONAL RESEARCH PROGRAM IN MICROBIOLOGY

The problem which is central to this program arises from the fact that there do not now exist in this country enough laboratories, staffed by highly specialized personnel, to identify quickly and accurately the kinds of organisms which appear to be potential bacteriological warfare agents. Also, the best existing techniques for identification of these agents are not adequate to meet emergency needs. The sectional research program was established in 1951 to help correct these deficiencies through awards by the National Institutes of Health of research grants to qualified applicants. Projects supported under this program have been directed toward more rapid and accurate methods of diagnosis of infectious diseases, improved immunization procedures, treatment for diseases for which satisfactory therapy is not now known, and increased knowledge of certain infectious diseases peculiar to given areas. In all probability, these projects would not have been undertaken except for the stimulus of this program.

A second objective of the sectional research program has been to establish better collaboration between the research centers and the State and other official health agencies which have the final responsibility for disease control in the event of an emergency. An outstanding scientist in each of 11 sections of the United States has been asked to serve as a coordinator for the activities of the program within his section. Associated with each of these coordinators are the heads of from 10 to 15 research laboratories particularly competent in the fields of infectious diseases. These laboratories have indicated their willingness to assist upon request official health departments investigating unusual outbreaks of disease. To further this important work, the National Institutes of Health has purchased supplies of uniform diagnostic materials for distribution to the cooperating laboratories. These activities do not duplicate responsibilities now vested in the official agencies; their purpose is to support such agencies in the event assistance is needed.

Administrative direction of the program is supplied by the Division of Research Grants and the National Microbiological Institute of the National Institutes of Health, with the guidance of an ad hoc committee. This committee consists of the 11 coordinators, along with representatives from the Office of the Secretary of Defense, the Army, the Air Force, the Navy, the Chemical Corps Biological Laboratories, the Department of Agriculture's Bureau of Animal Industry, the Federal Civil Defense Administration, and the Public Health Service. This representation permits complete exchange of information with other governmental agencies having responsibilities in defense against biological warfare.

RELATIONSHIP WITH OTHER AIR MONITORING WORK IN PHS

Mr. BUSBEY. Referring back to the justifications for communicable disease control activities, on pages 4–7, they talk about devising adequate air monitoring systems and developing diagnostic techniques for rapid identifications of aerogenic pathogens, and they say the aim of their work is to protect the civilian population from pathogenic agents disseminated through the air in peace or in war. This sounds a lot like some of the activities you have just described.

Dr. HAAS. As this testimony indicates, the Communicable Disease Center, and I believe the Sanitary Engineering Center at Cincinnati, are concerned with developing air monitoring devices. The Microbiological Institute is not engaged in that phase of the work. We

feel it is being handled adequately by competent people in those other branches.

Mr. BUSBEY. How does your work differ from theirs?

Dr. HAAS. Our interest and concern are principally with the evaluation of material taken from the patient or the individual who may have already become exposed to infection.

It is quite likely, Mr. Chairman, that illness in people may be the first sign of infectious material in the environment, and it is certainly important to identify the nature of that illness as rapidly as one can.

Mr. BUSBEY. We have an appropriation for engineering sanitation and industrial hygiene which also supports activities in connection with air monitoring and developing of air monitoring methods. Do you know of any reasou why these should not all be combined?

Dr. HAAS. Speaking for the Microbiological Institute only, I can say that that is not the particular phase of the problem with which we are prepared to deal. The extent to which the two other branches of the service are collaborating is perhaps something which ought to be gone into by someone who has more continuous review of their programs than I do.

Mr. BUSBEY. Is this not all closely related to the sectional laboratory research?

Dr. HAAS. It is, and we have made it a point to keep in touch with one another. The people who deal with the sectional research program keep in touch with the people in the Sanitary Engineering Center and with C. D. C., since both are represented in our councils which steer the sectional research program.

We have had one large conference in which much of this work was planned and laid out in order that the different aspects would be covered by those who have the scientific competence which applies.

Dr. SEBRELL. The development of devices and how to counteract various mechanical defects is essentially engineering. These are largely engineering problems, while the sectional research program deals with people such as virologists in universities and competent laboratories that are doing research work in developing new methods of identifying unknown organisms, or unsuspected organisms, or diagnosing mysteriously appearing diseases where the cause may not be clear. It takes special laboratory techniques to take material from a sick person and rush it into a laboratory and determine the cause of that person's illness, and if it something that is new or unexpected, perhaps developing very rapidly, to find some method of counteracting this. This is an entirely different set of problems from the engineering problems involved in sampling devices, check methods, and things of that kind for air, water, and so on.

Dr. SHANNON. I think Dr. Sebrell's statement could be fortified even more by trying to see what the normal peacetime job of Cincinnati engineers might be.

Their primary concern is air pollution, water pollution, problems of industrial hazards. It is possible to take that background of normal peacetime responsibility and superimpose this additional responsibility on it without much disruption from their normal day-to-day work, in much the same way as it is possible to take the biologists and impose additional responsibility on them in such a way so as not to greatly disturb their normal peacetime job.

PORTION OF RESOURCES SPENT ON COMMUNICABLE DISEASES

Mr. BUSBEY. Dr. Haas, is there any way that you can give the committee an estimate as to what percentage of these funds are spent on communicable disease work and the percentage on the chronic diseases such as in the other Institutes?

Dr. HAAS. We do not break that down that way. Our work, of course, is all related to the infectious and parasitic diseases. Some of them are obviously chronic and some are acute. Some are both, or uncertain. I do not think we could give you an accurate statement on that basis since our mission is related to the causation rather than to the acuteness or chronicity.

CLINICAL CENTER ACTIVITIES

Mr. BUSBEY. Are there any other activities you carry on at the clinical center you would like to tell the committee about while you are here?

Dr. HAAS. I referred briefly, I think, to the common cold. I think it might be interesting to the committee to know that one of the viruses which we isolated a few months ago came from an outbreak of respiratory disease on our floor of the clinical center. Several of our patients acquired the infection, and one of our doctors and one of our laboratory helpers acquired it, and from several of those we isolated one of these new viruses, and from the others we were able to show that antibodies developed in their blood after they had recovered, so that we had one of our own little epidemics, you might say, which yielded us one of these new viruses.

We have in the clinical center an opportunity to study many of the complications of infectious diseases which never have been adequately studied in the past.

A recent example was a complication of measles. We ordinarily think of it as a common experience in childhood, which it is. Perhaps we do not remember that measles still is responsible for many deaths, and one reason for that is the complications. Not long ago we had the opportunity to see a child who had the complication of measles known as measles encephalitis. That is a direct infection of the brain, and a very serious one.

This child was brought to us in convulsions, extremely ill. We were able to put the child in the ward and provide the most up-to-date attention. I am sure we were able by virtue of our modern facilities there to save the life of that child and at the same time to furnish us with some very valuable information. By collaborating with the National Institute of Neurological Diseases and Blindness, we were able to get observations on brain waves which never would have been possible under ordinary circumstances, and which will serve as a guide to everybody in the future who must deal with this type of complication.

Those are a couple of examples of some of the unusual situations.

OTHER ADVANCES IN MICROBIOLOGY

Perhaps I might mention a few other things which represent some advances in microbiology. Would the committee be interested in that?

Mr. BUSBEY. Could you just supply those for the record, Doctor?
Dr. HAAS. Yes; I should be glad to.
Mr. BUSBEY. It would be appreciated if you would.
Dr. HAAS. Yes, sir.
(The information requested is as follows:)

NATIONAL MICROBIOLOGICAL INSTITUTE, APRIL 1954

In the battle against human illness, progress has perhaps been more rapid and extensive in the infectious and parasitic diseases than in any other area of medical biology. These gains have continued in the past year, and vigorous research at the National Microbiological Institute is taking advantage of constantly accumulating knowledge. Some of these advances are summarized in the following pages.

INFLUENZA

Influenza is a respiratory disease of high prevalence. Although deaths in recent years have been limited largely to the aged and debilitated, absenteeism often cripples industrial and commercial activities, closes schools, and creates serious military problems. And there is always a potential threat of a devastating worldwide epidemic such as that of 1918–19.

One area in which we are making progress against influenza concerns the development of more effective vaccines. During the past 3 years, the National Microbiological Institute, with the support of the Armed Forces Commission on Influenza, has been testing a new "water-in-oil" vaccine which thus far appears to provide a greater measure of protection for longer periods than the vaccines now in use.

One notable feature of this new vaccine, developed by a University of Pittsburgh investigator, is the fact that only a very small amount of virus is needed to produce the desired effect. It takes all the virus that can be grown in one egg, for example, to produce one dose of conventional vaccine; from the same amount of virus, a great many equally potent doses of water-in-oil vaccine can be prepared. As a result, protection against a very large number of virus strains can be concentrated in a single dose of vaccine.

COMMON COLD

This widely prevalent disease, which costs us over $2 billion a year in lost productivity and medical expenses, has long resisted advance. Now, however, this outlook is changing. With the development of tissue culture methods (growing viruses in test tubes), it has become possible to propagate many types of viruses under almost routine laboratory conditions.

This has given new impetus to research on the common cold. At the present time, for example, scientists at the National Microbiological Institute, and a university scientist supported by an NMI grant, are working together to standardize methods for evaluating the common cold in human volunteers. Plans are now being prepared for inaugurating a controlled study in an institutional population. This would involve inoculating volunteers with infected materials and studying the illnesses produced in these individuals.

Because scientists now have at their disposal research tools which have been lacking in the past, progress against the common cold appears more likely now than ever before. Without doubt, tissue cultivation of viruses has opened up a new era in infectious disease research.

EYE DISEASE

In recent years, eye specialists have suspected that chorioretinitis, a disease which produces a devastating inflammation of the retina and its supporting structures, may be caused by a microscopic parasite known as Toxoplasma. This thesis has now been definitely proved by a scientist of the National Microbiological Institute. Early this year, he succeeded in isolating for the first time the Toxoplasma organism from a human eye removed from a patient at Walter Reed Hospital.

This demonstration that forms of eye disease such as chorioretinitis canbe caused by this parasite constitutes an extremely significant finding in the field of eye disease. It clarifies a much debated issue and gives the medical profession important new information on the cause of this type of eye disease.

The Toxoplasma parasite produces other forms of disease in addition to eye infections. In the last 15 years it has been recognized as the cause of an acute, often fatal infection in the newborn. In such cases, the infant contracts the disease in the womb because the mother has acquired a symptomless infection during the period of pregnancy. The parasites usually cause destruction of the central nervous system so severe that it leaves the victim mentally retarded if the outcome is not fatal. Later children of the same mother are believed to be safe because she develops protective antibodies in her blood.

VACCINE IMPROVEMENTS

Although immunization has been practiced for many years and has proved a valuable public health measure, some vaccines still appear to fail at times. Those against whooping cough and diphtheria are good examples. Both are under study at the National Microbiological Institute.

During the past year, a standard potency test for whooping cough vaccine was devised and put into use. This is the first time any nation has succeeded in developing a standard requirement which this vaccine must meet; there is reason to expect that this achievement will reduce the number of vaccine failures in whooping cough, a disease which is particularly serious in the age group under 2 years, where most of the deaths occur.

A new method for testing diphtheria vaccine, with a similar objective, is also under investigation.

Even with one of the most effective of all vaccines—that against smallpox—problems are still encountered. One such difficulty is maintenance of potency under conditions where refrigeration is unavailable or unreliable. During the past year, scientists of the National Microbiological Institute have taken a leading role in the development of a dried smallpox vaccine which offers great promise for use under rural, military, and primitive conditions.

INFECTIONS AND CANCER

It has been known for several years that a number of viruses interfere with the growth of certain tumors. During the past year, scientists of the Microbiological Institute, working with other scientists at NIH, have shown that such interference can also be demonstrated with other microorganisms. In studies of mice which have a form of cancer known as leukemia, the investigators found that the parasites which cause malaria and those which cause toxoplasmosis both prolonged the lives of such mice.

No one can yet say what is the ultimate significance of such observations in relation to human disease. Work to date, however, justifies meticulous and painstaking studies to uncover new knowledge of possible relationships between cancer and infection.

VIRAL JAUNDICE

Viral jaundice, or hepatitis, is a liver disease which occurs in two forms. One is transmitted in nature as an infectious disease, and the other occurs as the result of transfusions of blood or plasma containing the virus or through the use of improperly sterilized instruments.

Both infectious and serum hepatitis have been difficult to study in the laboratory, largely because experimental animals are not susceptible to the disease and because the causative virus cannot be consistently grown by tissue culture methods.

During the past year, however, two very promising leads have been developed in hepatitis studies at the National Microbiological Institute. First, infectious material taken from serum hepatitis patients and injected into monkeys has caused clinical illness and hepatitis after an incubation period of 80 days. The transfer of liver material from these animals to other monkeys has caused liver-function abnormalities. This is the first time anything resembling serum hepatitis has been produced from human materials by inoculation of experimental animals.

The second lead concerns the discovery of what appears to be a naturally occurring hepatitis virus in raccoons. Intensive studies are being made to determine what relationship, if any, it has to the virus causing hepatitis in man. Even if it proves to be unrelated, it would still be of major importance as a model of the human disease for experimental animal studies which would be applicable to man.

AMEBIASIS

This disease, best known for one of its manifestations—amebic dysentery—is caused by a protozoal organism that attacks the intestines. Recent surveys have shown that the parasite infects about 7 percent of the people in the United States, and in World War II it was an important cause of disability for soldiers fighting under unsanitary conditions in the Pacific and Far East.

During the past year, scientists of the National Microbiological Institute obtained new information on the epidemiology of amebiasis by the experimental infection of human volunteers with a closely related but nonpathogenic organism. These experiments involved direct transmission through food, exposure through drinking water, and transmission by flies. Transmission through drinking water was shown to be more easily accomplished than fly transmission, and no difficulty was encountered in producing infection through food.

These experiments indicate that intestinal protozoal infections can be induced by relatively small doses of infectious material, thus accounting for the relatively high incidence of these infections even in the United States, where sanitary conditions are considerably above the world's average.

LEPTOSPIROSIS

Within the last 5 years it has become apparent to investigators that a large amount of leptospirosis is present in domestic animals in this country. All of the leptospira found in animals are known to cause disease in man. The human phase of the disease manifests itself in such conditions as liver and kidney disorders, eye infections, central nervous system disturbances, and influenzalike disease. The animal phase results in abortions, stunting, and poor milk production. In some types of leptospirosis—Weil's disease, for example—the mortality rate in humans may be 30 percent and in some animals as high as 50 percent.

A cooperative study on leptospirosis is now being carried out by scientists of the National Microbiological Institute and the Communicable Disease Center. This work has produced several recent accomplishments. They include: Detection of bovine reservoirs of the disease in at least 16 States; detection of a swine reservoir in most of the hog-raising States; development of a new diagnostic method; and the detection of leptospirosis in human subjects.

Q FEVER

Q fever is a disease first described in 1937 in Australia. It is caused by Rickettsiae, a family of organisms which produce such diseases as typhus and Rocky Mountain spotted fever. In this country, Q fever is known to occur in several States.

Scientists of the National Microbiological Institute have shown that dairy cattle are one of the principal sources of human infection. In recent investigations in two Western States, they have also proved the existence of Q fever infections in sheep.

One of the confusing things about Q fever is it resemblance to the so-called virus pneumonias. Our scientists have been able to show, however, that virus pneumonia and Q fever are different diseases. They have also developed a new diagnostic test which is simple to perform and can yield results in a few hours. Finally, they have developed a vaccine which field tests have shown is useful in preventing Q fever infection in dairy cattle, one of the primary sources of human infections.

HISTOPLASMOSIS

This is a fungus disease, apparently of worldwide distribution but originally thought to be of quite rare occurrence. Within the past decade it has been found that the disease is not uncommon in East Central United States and can cause mild to severe lung disease.

Microbiological Institute scientists have demonstrated that the causative organism exists in the soil, from which it is believed to infect other species of animals besides man. As yet no drug has been found which will cure histoplasmosis, although recently our scientists have developed a vaccine which will protect mice against the disease. They have also carried out field studies that indicate only a small percentage of nontuberculous lung calcification is caused by histoplasmosis.

CLINICAL CENTER STUDIES

With the opening of the National Institutes of Health's new research hospital in the past year, our scientists now have an opportunity to study infectious illnesses in the host whose welfare is our first concern: the human being. In many of these diseases, study of experimental infection in animals is either impossible or unsatisfactory. Admission of carefully selected patients for study in close proximity to adequate laboratory facilities and skills is now making it possible to investigate the poorly understood causes of many infectious diseases and to improve the reliability of diagnostic methods and treatment.

Rheumatic fever is an example of a disease which has been selected for intensive study in the Clinical Center. The newer laboratory tests for this disease are being evaluated to help establish criteria for diagnosis which are lacking at present. Our scientists are also interested in learning more about how the disease develops, particularly the factors that lead to heart involvement and the serious damage which often follows. New methods of treatment will also be evaluated. Because many of the problems in rheumatic fever involve the research interests of other Institutes at NIH, this project is being carried out in close collaboration with investigators of the National Heart Institute and the National Institute of Arthritis and Metabolic Diseases.

Other diseases selected for study include viral jaundice, trichinosis, the respiratory viral diseases, encephalitis, allergic disorders, undulant fever, amebic dysentery, toxoplasmosis, and certain streptococcal infections.

Many of the diseases under study by the National Microbiological Institute are of particular importance in relation to children. As is true with immature animals, infants and children have less resistance to infections than adults. And while the discoveries of recent years have saved many lives in the younger age groups, it is still true that the great bulk of infectious and parasitic diseases occur in children. In many cases, these diseases leave serious damage resulting in invalidism and chronic illness in later years. For these reasons, the program of this Institute places strong emphasis on these important and often distressing affections of childhood.

Mr. BUSBEY. Mr. Fogarty?

Mr. FOGARTY. As you know, Mr. Chairman, I was unavoidably detained yesterday and could not be here. I was very much interested in those programs discussed yesterday, and with your permission I would like to submit a list of questions to the directors of the institutes which I would have asked had I been present and have my questions and their answers printed in the hearings record.

Mr. BUSBEY. That will be perfectly all right.

QUESTION OF POSSIBLE DUPLICATION WITH OTHER PHS DIVISIONS

Mr. FOGARTY. Doctor, can you give us, just so I can get it clear in my own mind, a clear statement as to whether there is any duplication between your work and the work of the Communicable Disease Center, at Atlanta, or any other agency of Government, and, if so, whether it is avoidable or unavoidable?

Dr. HAAS. I believe, Mr. Fogarty——

Mr. FOGARTY. We may be called upon to answer this on the floor. I would like to have a clear-cut statement from you as to whether there is any duplication or not; and, if there is, whether it is avoidable or unavoidable.

Dr. SHANNON. May we prepare it?

Mr. FOGARTY. It is all right if it is prepared. I just want it for the record.

Dr. HAAS. All right, sir.

(The information to be supplied is as follows:)

Relationships Between the Research Programs of the National Microbiological Institute and the Communicable Disease Center

There is no duplication between the research programs of the Communicable Disease Center and the National Microbiological Institute.

In general, the feature that distinguishes the work of the two organizations—as a matter of policy and practice—is the fact that NMI is engaged in basic studies of disease processes and the organisms which produce them, while CDC engages, as a necessary part of its major mission of disease control, in applied research designed to improve techniques of disease control. These two approaches require persons with different training and background, different research approaches and interests, different facilities and instrumentation, contacts with different groups and individuals, and different collaborative working relationships with other research and administrative organizations.

The Public Health Service deliberately separates these types of research, just as industrial concerns separate their basic research laboratories from research involving sales and product development. Occasionally, the natural evolution of research projects leads investigators in NMI toward applied area, and investigators in CDC toward basic studies. This is accepted as a means of hewing to the general policy guides while providing reasonable elbow room to investigators. Coordination between the work is achieved primarily by informal contact among investigators with related interests, supplemented by more formal administrative coordination through the Research Planning Council of the Public Health Service.

Investigations that bear upon the same disease or disease agent are conducted by both organizations. However, the fact that the same disease or disease agent is under study is only one of the factors—and often a minor factor—that enters into the actual substance of research. Some of the factors that differentiate research related to the same disease are:

(1) Research related to control of the disease by field studies of ways to reduce insect populations versus research directed toward evaluation of the effectiveness of suppressive or curative medicines.

This is the situation with respect to studies of malaria by the two organizations. CDC is engaged in improving techniques for controlling the mosquito which, when infected with malaria, can transmit the disease to man. NMI is engaged in testing the efficacy of new drugs which cure malaria. These two types of research involve people with different skills and experience, and the use of different experimental techniques. In no sense do they duplicate or overlap each other even though both are concerned with malaria. On the other hand, the outcome of the studies should produce supplementary means of dealing with malaria.

(2) Research involving basic studies of disease organisms versus resolution of technical problems involved in preserving, shipping, and storing organisms.

For example, both NMI and CDC conduct research involving the bacillus that causes TB. But the NMI investigations involve such studies as evaluation of vaccine produced from killed TB germs, the growth requirements of the TB germ, and studies designed to show why and how infection is localized in the lungs. The CDC studies bear on freezing and drying the TB organism to maintain cultures over longer periods by simpler techniques than are now available as a means of improving diagnostic procedures.

(3) Research on patients with a disease versus field studies of the spread of the disease.

NMI is studying, for example, amebiasis in patients in the Clinical Center to determine the relationship between infestation of humans by ameba and the presence of symptoms of amebic disease. CDC is studying the epidemiology of amebiasis—in nature, including such matters as the reservoir of the disease in nature and the environmental factors limiting its extent and distribution. As an adjunct to such field studies, NMI has conducted a spot field study of an epidemic of amebiasis in a community. Again, the fact that the same disease is under study does not indicate duplication of research, in the sense of pointless and unproductive conduct of the same work by two groups of investigators.

Differences of this general kind characterize other research involving the same disease that is carried on by CDC and NMI.

The compression of descriptions of research activities within the confines of a short-budget document requires that the activities be characterized quite briefly and in graphic terms. This leads to the use of disease or disease organism names as a means of describing the research, and the brevity of the documents necessarily forestalls an explanation of the actual substance of the investigations.

PURPOSE FOR WHICH INCREASE IS REQUESTED

Mr. FOGARTY. You are asking for an increase of $200,000 for research. How is that going to be applied? Is that for the Clinical Center?

Dr. HAAS. Yes, and for research related to our clinical investigations.

Mr. FOGARTY. In other words, in your institute they took care of the increase which was necessary to operate the Clinical Center and didn't take it from some other part of your program?

Dr. HAAS. The increase we have we feel will give us the opportunity to take advantage of the clinical facilities, yes, sir.

Mr. FOGARTY. You didn't answer my question. Some of these other institutes deducted certain amounts from other operations to take care of the additional costs to operate the new Clinical Center. They didn't do this here?

Dr. HAAS. No, sir.

Mr. FOGARTY. They took care of that by giving you additional moneys to open up additional beds for this research?

Dr. HAAS. That is correct.

Mr. FOGARTY. That is the way I think it should have been done in the other institutes.

There is no increase in personnel; is that right?

Dr. HAAS. Yes.

PENALTY MAIL AND INGRADE PROMOTION COSTS

Mr. FOGARTY. What does your penalty mail costs amount to?

Dr. HAAS. I wonder if I might ask Mr. Harlow?

Mr. FOGARTY. Supply it for the record.

(The information requested is as follows:)

The amount for penalty mail is $1,500.

Mr. FOGARTY. And the cost of your ingrade promotions. Please supply that, also.

Dr. HAAS. Yes, sir.

(The information requested is as follows:)

The amount for ingrade promotions is $38,500.

PREDOCTORATE FELLOWSHIPS

Mr. FOGARTY. Was it the predoctorate fellowships that the National Science Foundation was to take over this year?

Dr. SHANNON. Yes, sir.

Mr. FOGARTY. Before the National Science Foundation moved into the picture what was the situation?

Dr. HAAS. We had two predoctorate fellowships then.

Mr. FOGARTY. What did you have in 1953?

Dr. HAAS. 28.

Mr. FOGARTY. You did have them before, then?

Dr. HAAS. Yes.

Mr. FOGARTY. The reason for the reduction from 28 to 2 was because you thought the National Science Foundation would pick up that work?

Dr. HAAS. That is correct.

Mr. FOGARTY. Did they?

Dr. HAAS. I think there was an increase in their support of that type of thing.

Mr. FOGARTY. How many did they pick up of that 28?

Dr. HAAS. I don't have that figure with regard to those particular ones.

Mr. FOGARTY. Do you know?

Dr. SHANNON. We can give you that. It depends on how you calculate. If you calculate it within the narrow interpretation of the microsciences there was a loss in the total predoctorate fellowship program in this country of approximately 190.

If, on the other hand, you take those predoctorate fellowships which went through medical sciences closely related to research and medicine, there was a total loss of some 140.

Those figures may not be exact but we can furnish precise figures for the record.

Mr. FOGARTY. How important were these predoctorates?

Dr. HAAS. In general we feel predoctorate fellowships are important in that they are a source of future scientific capability. Of course we want to see them supported since we have to replace our scientists in that fashion.

EFFECT OF REDUCTION IN SUPPORT

Mr. FOGARTY. What happens if we do not support such a program as this?

Dr. HAAS. Well, young men of that sort must get support somewhere.

Mr. FOGARTY. Suppose the number is 25. Then, suppose the National Science Foundation did not come into the picture and we were supporting 25 of these fellows in this past year, and we do not support them next year. What is the difference in the overall program? How would it be affected?

Dr. HAAS. Well, it would be hard for me to predict that. I am quite sure that they as individuals, if they didn't get their support from us or from the Science Foundation, would seek it elsewhere. I understand that there are places from which support can be obtained. I presume the success of any given individual would depend upon the level of competition, total overall support for which he could appeal.

Mr. FOGARTY. In other words, so far as you are concerned, then, there is no need for this program at all so far as the Government is concerned? We ought to get out of it. Is that right?

Dr. HAAS. I couldn't say we should do that.

Dr. SHANNON. What Dr. Haas says is perfectly true, that if there is not a predoctorate fellowship program in the Government these young men will seek aid elsewhere. Every granting agency, however, that makes available predoctorate fellowships, has a large number of applicants for every one thay can grant. The amount of money in this field is quite low.

I think that those of us who worry about competition for bright youngsters, where they have a choice of going into an engineering field or medical sciences, feel every inducement we can offer them to attract the better men into the medical centers, the better investigators we will have in future years.

Regardless of who runs the program, there should be provided in Federal funds in the National Science Foundation or elsewhere a sizable amount of money for predoctorate fellowships.

I think that we testified some 2 or 3 weeks ago that were we encouraged to go back into the predoctorate fellowship program, we feel so strongly about the need, that we would be quite happy if we were instructed to do so to take some of the money now available for postdoctorates and put it into the predoctorate program.

Mr. FOGARTY. I think we all agree that if there are funds available elsewhere than the Federal Government, that is where these fellows ought to go. You still have not answered the question I asked at the beginning. If there are funds available from other sources, then by all means they should take advantage of those other sources. But if there is going to be a shortage of 25 because the Government is not in this field, we ought to know that.

Dr. SEBRELL. I am afraid that what happens is that when they apply for funds elsewhere and fail to get them, they give up this field and go into some other field.

I recently had conversations with the presidents of some of our large universities and with the deans of some of our large medical schools, and uniformly they have told me that there is a growing problem concerning the shortage of men in what is called the preclinical sciences. They regard this as being somewhat of a threat to the future of medical research in this country. The men are not coming along in sufficient numbers even to fill the posts of the professorships of some of these preclinical sciences in the schools.

It is our feeling that a predoctorate fellowship program is an essential part of the full support of medical research. It is not enough just to have research projects, and it is not enough just to have postdoctorate fellowships. We have seen the effect of this, as Doctor Shannon mentioned, in the decrease of approximately 140 people coming into the program which otherwise would have been in here we believe.

Therefore we feel that a predoctorate fellowship program is an essential part of the whole picture of adequate support for medical research.

Mr. FOGARTY. I think it is essential, too. What has happened to the program, though? That is what I am trying to find out and you have not told me yet.

Dr. VAN SLYKE. We discussed this matter with you before the 2-week recess. At that time you and the other members of the committee appeared to be extremely interested in instructing us to reimplement our predoctorate research program. I do not think my personal feelings have much bearing in this matter but I do not mind telling you that I was pleased to hear you say that, because there is a definite need in developing national interest in the field of health, bringing more capable young men into the field so that they become competent research workers in health matters.

We cannot get those people into the field and train them in problems of health and research unless we get them relatively early. That means that if we are instructed, with the funds we have, at least, to reimplement our predoctorate research fellowships, we can go back into the younger age groups where their final plans are not formulated

and bring those people into the health field and continue support to the postdoctorate program.

In specific answer to your question, Mr. Fogarty, one of the most distressing things is to have a series of applications and not have funds to support them. I refer not only to our particular funds, Mr. Fogarty, but as far as I know all agencies, National Science Foundation, and so on, get many more applications than they have funds to support.

Mr. BUSBEY. If I may inject this thought here: As far as my own personal viewpoint on this question you have raised, Mr. Fogarty, it seems any transfer of this activity in the medical field to the National Science Foundation means that the medical field will suffer. I think it was a bad mistake. I think we ought to do something to get it back.

Mr. FOGARTY. That was the only reason for my questions. I wanted to develop something here.

Will you supply a statement for the record as to what the effect of the reduction of predoctorate fellowships has been so far as this Institute of Microbiology is concerned?

Dr. SEBRELL. We will supply that for the record, Mr. Fogarty.

(The information requested is as follows:)

PREDOCTORATE FELLOWSHIPS

In the fiscal year 1953 the general appropriation, "Operating expenses, National Institutes of Health," provided for support of a total of 45 fellows in the field of microbiology at a cost of $150,000. Half of these were predoctorate fellows. In 1954 the decision was made to transfer all new awards of predoctorate fellowships to the National Science Foundation. The 1954 President's budget accordingly reduced the microbiology fellowship program to $117,000, which amount is currently being used solely in support of postdoctorate fellows and for completing the training of predoctorates who had started training under National Institutes of Health awards before the transfer decision was made. The 1955 figure is also $117,000. The net reduction of $33,000 in comparing the 1954 amount with the 1953 amount represents the Microbiology Institute's share of the $390,000 total transfer figure which embraced all NIH programs. This $33,000 cut would support approximately 10 predoctorate fellowship awards.

RECENT BUDGET HISTORY

Mr. FOGARTY. Doctor, what was the so-called Truman budget for 1954?

Dr. SEBRELL. $7 million.

Mr. FOGARTY. What was the Eisenhower budget?

Dr. SHANNON. $5,738,000.

Mr. FOGARTY. What did the House give you?

Mr. KELLY. $5,479,200.

Mr. FOGARTY. What was your final appropriation?

Mr. KELLY. $5,738,000.

Mr. FOGARTY. That was the Eisenhower budget?

Mr. KELLY. Yes, sir.

Mr. FOGARTY. What did you request for this year of the Bureau of Budget?

Dr. HAAS. $6,106,500.

Mr. FOGARTY. They allowed $176,500 less than you requested. Is that correct?

Dr. HAAS. That is right; yes.

Mr. FOGARTY. That is all, Mr. Chairman.

TUESDAY, APRIL 27, 1954.

NEUROLOGY AND BLINDNESS ACTIVITIES

WITNESSES

DR. PEARCE BAILEY, DIRECTOR, NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS
DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. C. J. VAN SLYKE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. LEONARD A. SCHEELE, SURGEON GENERAL
ROY L. HARLOW, CHIEF FINANCE OFFICER

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate		$4,500,000	$4,763,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		1,750	
Adjusted appropriation or estimate (obligations incurred)		4,501,750	4,763,000
Comparative transfer from—			
"Operating expenses, National Institutes of Health, Public Health Service"	$1,445,547		
"Salaries, expenses, and grants, National Cancer Institute, Public Health Service"	139,330		
"Mental health activities, Public Health Service"	59,243		
"Salaries, expenses, and grants, National Heart Institute, Public Health Service"	169,530		
Total obligations	1,813,650	4,501,750	4,763,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Grants for research and training:			
(a) Research projects	$1,273,122	$2,700,000	$2,700,000
(b) Research fellowships	148,398	150,000	150,000
(c) Training grants	43,918	400,000	400,000
(d) Training stipends	51,010	104,000	104,000
2. Direct operations:			
(a) Research	208,785	1,039,750	1,283,000
(b) Other direct operations:			
(1) Review and approval of research and training grants	21,331	48,000	48,000
(2) Administration	67,086	60,000	78,000
Total obligations	1,813,650	4,501,750	4,763,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	31	123	123
Full-time equivalent of all other positions	2	2	3
Average number of all employees	19	86	120
Average salaries and grades:			
General schedule grades:			
Average salary	$4,337	$4,599	$4,599
Average grade	GS–6.2	GS–6.7	GS–6.7
01 Personal services:			
Permanent positions	$103,044	$443,410	$610,200
Other positions	9,887	10,100	12,650
Regular pay in excess of 52-week base	445	2,070	2,070
Payment above basic rates	6	1,670	1,970
Total personal services	113,382	457,250	626,950
02 Travel	10,255	20,700	27,000
03 Transportation of things	2,155	4,300	5,600
04 Communication services	2,608	8,150	8,500
05 Rents and utility services	750	650	700
06 Printing and reproduction	798	4,800	6,000
07 Other contractual services	20,149	10,750	12,050
Reimbursements to "Operating expenses, National Institutes of Health, Public Health Service"	129,896	564,800	626,950
08 Supplies and materials	5,440	46,400	63,100
09 Equipment	11,299	28,950	32,650
11 Grants, subsidies, and contributions	1,516,448	3,354,000	3,354,000
15 Taxes and assessments	470	3,300	3,900
Subtotal	1,813,650	4,504,050	4,767,400
Deduct charges for quarters and subsistence		2,300	4,400
Total obligations	1,813,650	4,501,750	4,763,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year			$451,750
Obligations incurred during the year		$4,501,750	4,763,000
		4,501,750	5,214,750
Deduct unliquidated obligations, end of year		451,750	514,750
Total expenditures		4,050,000	4,700,000
Expenditures are distributed as follows:			
Out of current authorizations		4,050,000	4,270,000
Out of prior authorizations			430,000

Mr. BUSBEY. The next appropriation item we have for consideration is the budget request for neurology and blindness activities of the National Institutes of Health. At this point, we will insert your prepared statement, Dr. Bailey.

GENERAL STATEMENT

HISTORICAL BACKGROUND

The National Institute of Neurological Diseases and Blindness is the youngest of the National Institutes of Health, having been established by Public Law 692, August 1950. No appropriation, however, was made to activate the Institute until fiscal year 1952 when $1,250,000 was made available to initiate a beginning program of research in the broad field of neurological and sensory disorders. These funds were allocated within the general appropriation "Operating expenses, National Institutes of Health, Public Health Service, 1952."

During fiscal year 1953, $1,972,300 was appropriated under the same general appropriation to provide for essentially the same program as the previous year,

the bulk of the funds going to the support of research activities in medical schools and universities.

To further the original plans of the Institute, to capitalize on expenditures to date, and to begin to meet the rising urgency of more research in this relatively neglected area, the fiscal year 1954 appropriation of $4,500,000 carried, for the first time, the National Institute of Neurological Diseases and Blindness as an identifiable appropriation item.

NATURE AND INCIDENCE OF NEUROLOGICAL AND SENSORY DISORDERS

Neurological and sensory disorders, which comprise diseases of the nervous system and its sensory endings—the eye and the ear, create an extremely serious public-health problem. Constituting over 200 disease entities, they affect approximately 20 million persons in the United States alone, of whom at least half endure gravely disabling conditions. Among the crippling neurologic conditions are cerebral palsy, multiple sclerosis, epilepsy, muscular dystrophy, apoplexy, Parkinson's disease, and injuries to the brain and spinal cord. Among the serious sensory disorders are glaucoma, cataract, retrolental fibroplasia, and many other conditions which cause partial blindness and deafness.

While only the third cause of death (after heart disease and cancer), it is probably the first cause of permanent crippling. The victims of these diseases so often are afflicted in childhood, or early adulthood, and continue to live as cripples through a normal period of life expectancy.

ECONOMIC BURDEN TO THE NATION

The drain, therefore, on the Nation's economy caused by the neurological and sensory disorders is a matter of major public concern. The total annual costs of these conditions must be measured in the billions. This staggering estimate may be more understandable if we consider the fact that all cost areas for the permanently crippled, including wage and productivity losses, medical and welfare expenses, indemnity and compensation costs, and tax revenue losses, are inevitably more severe than for temporary or only partially debilitating illnesses.

RISE OF PUBLIC INTEREST

Ten years ago, there was but one organization concerned with research into neurological disorders: the National Foundation for Infantile Paralysis. Today, there are more than 10 voluntary health organizations and professional societies concerned with this problem. Within just the past 5 years the United Cerebral Palsy Associations, the National Multiple Sclerosis Society, the National Epilepsy League, the Myasthenia Gravis Foundation, the National Paraplegia Association, and the Muscular Dystrophy Associations, with their many local chapters throughout the country, have been established; and these organizations and others have given to medical research the highest priority. Older organizations such as the National Society for Crippled Children and Adults have also initiated programs in support of medical research, in addition to their farflung activities in patient care and welfare.

NATIONAL COMMITTEES FOR RESEARCH

This surge of research interest in the neurological and sensory disorders has not only become evident in each individual program of each society, but in all of them as two closely correlated groups. In 1952, the National Committee for Research in Neurological Disorders was formed, composed of the National Epilepsy League, the National Society for Crippled Children and Adults, the National Multiple Sclerosis Society, the United Cerebral Palsy Associations, the Muscular Dystrophy Associations, and several professional medical groups.

In 1953, the National Committee for Research in Eye Diseases and Disabilities was formed, composed of the American Foundation for the Blind, American Association of Instructors of the Blind, National Federation of the Blind, National Industries for the Blind, Association for Research in Ophthalmology, American Association of Workers for the Blind, the National Society for the Prevention of Blindness, the National Foundation for Eye Research, the National Council to Combat Blindness, the Ophthalmological Foundation, We the Blind, Eyes Right, Inc., the Blinded Veterans Association, Inc., the American Ophthalmological Society, Inc., the American Academy of Ophthalmology, and the section on ophthalmology of the American Medical Association.

Both of these national interagency committees have similar interests: to coordinate their research efforts as separate agencies and to stimulate research further from both public and private sources.

PRESENT STATUS OF OUR KNOWLEDGE

When the National Institute of Neurological Diseases and Blindness was activated in 1952, a number of brilliant new discoveries in the field of neurological and sensory disorders had secured the scientific beachhead indispensable to an effective large-scale research offensive. The award in rapid succession of the Nobel prize in science to seven neurologic investigators bears witness to the significance of these achievements.

NEW PRECISION INSTRUMENTS

The discovery of air encephalography by Dandy and angiography by Moniz; the even more recent development of electroencephalography for the evaluation of brain waves, and electromyography for measuring the electric potentials of neuromuscular contractions; and finally, the introduction of radioisotopes as tracer techniques—all of these advances help make up the new scientific front for a total attack on the crippling neurological and sensory disorders. These discoveries have given us not only new and valuable diagnostic tools, but also reliable precision instruments for evaluating, by remote control, activities of the brain under varying conditions, and for tracing the concentration and action of the many complex body chemicals which regulate the functions of the nervous systems in both health and disease.

To these modern discoveries should be added the development of still newer techniques in biophysics and biochemistry- and the rise of neurological surgery not only as a weapon for the attack on brain tumors and other injuries to the nervous system, but also as an important tool for exploring the action of the brain. The United States today has unchallenged world leadership in neurological surgery.

NEED FOR A NATIONAL PROGRAM

Brilliant as these accomplishments were, their logical, practical development in relationship to disease were never exploited. While neurological research had produced isolated, brilliant achievements, a sustained coordinated approach which could fulfill the opportunities presented could not be undertaken. What was evident, finally, as Harvey Cushing saw it as early as 1919, were two primary needs: the sustained support of worthy investigators already in or about to enter the field so that continuity of research could be obtained, and a national research program where coordination of effort would be a leading principle in exploiting the main opportunities for the prevention or treatment of neurological and sensory disorders.

RESEARCH PROGRESS (1952–54)

The action of Congress in establishing the National Institute of Neurological Diseases and Blindness was perfectly timed to provide stimulus for exploitation of the backlog of fundamental findings.

Since the establishment of the Institute, this entire movement has been implemented to such an extent that already, within the span of a year or so, previous research opportunities have been translated into practical research accomplishments and still newer opportunities have been created, which promise concrete results if vigorously pursued.

Some examples of major research progress include:

1. The development of a method, by an Institute grantee, for preventing a disorder in newborn children which leads to a type of cerebral palsy. As a result of this work, more than 1,000 children annually are saved from death or serious crippling (approximately one-tenth of the cerebral-palsied children born each year).
2. The development of a brain operation which can result in elevating the productive capacity of thousands of patients with cerebral palsy.
3. The discovery by an Institute grantee of a method for producing experimental epilepsy in laboratory animals whereby new therapeutic agents for the control of this disorder may be tested safely and swiftly (today 80 percent of epileptic seizures can be controlled.)
4. The discovery by Institute investigators at the Bethesda Clinical Center of the probable basic chemical causes for the abnormal discharge of brain cells in epilepsy, which may help lead to a final cure.

5. The use of new drugs in the treatment of myasthenia gravis (a debilitating neuromuscular disease). Today, 80 percent of these patients of all ages, if adequately treated, may expect to survive the disease. Formerly, about half of these patients died within weeks after the diagnosis was made.

6. The use of newer and more effective drugs for the partial control of the symptoms of creeping paralysis (Parkinson's disease).

7. The further development by Institute investigators of special technics for evaluating the proteins of the spinal fluid, which would lead to an objective method for the early diagnosis of multiple sclerosis (at present, the average time taken to diagnose a case of multiple sclerosis is 6 years).

8. The use of a drug which in preliminary tests has checked the progress of ocular tension which causes acute glaucoma.

9. The findings through a collaborative project that the routine administration of high tension oxygen may be the reason for the most common cause of blindness among children: retrolental fibroplasia.

These and other research achievements, to be mentioned later, have been made possible by new and special facilities created through the Government's recent role in support of neurological and sensory diseases. Both the collaborative project in retrolental fibroplasia and our clinical center project in epilepsy, for example, amply reveal how the Institute's programs alone provide special facilities to meet special research needs in the field.

RETROLENTAL FIBROPLASIA

Retrolental fibroplasia attacks prematurely born infants about 3 to 5 weeks after birth. The initial symptoms are progressive so that complete loss of vision often ensues in the fourth or fifth postnatal month. Now it is the most common cause of blindness in children and it appears to be increasing.

Since 1943 little light could be cast on the causes of this disorder and it was not until 1952 that a grantee of the Institute presented evidence, as a result of work on animals, that retrolental fibroplasia might be due to administration of high tension oxygen in infants' incubators—a routine procedure in the care of premature infants in most hospitals.

Whether the work done on animals was applicable to humans, however, was, and still remains, the overwhelming question. The problem of finding the answer, moreover, was a complex one. Where could funds be found from any single source to finance the high costs of examining hundreds of premature children throughout the country, and who would provide the focal point for the administration of a research project involving a complex network of investigators and hospitals which were needed to obtain a decisive "yes" or "no" answer to the problem?

To both these questions, the Institute has provided the answer, and, as a result of its support, 36 investigators at 18 hospitals, working under a coordinated research plan, are devoting their energies to preventing the leading cause of blindness in children. This collaborative research project is being conducted by the Institute in cooperation with the National Society for the Prevention of Blindness and the National Foundation for Eye Research.

EPILEPSY RESEARCH

While developments in the control of epilepsy during the past decade have been highly significant, the possibility of a cure has seemed remote. The drugs which have been developed to reduce seizures have been evolved through a long process of trial and error, but the inability of science to study the brain tissue of living epileptics has made it impossible to understand those chemical changes which might be responsible for the disorder. From such understanding, it is believed, a method for changing the abnormal chemistry of the brain so that it may function normally is both a logical and inevitable step.

During the last 2 years, however, it has been accepted practice in a few neurological centers to perform neurosurgical operations on selected patients with epilepsy whose seizures can be traced to a localized area of abnormal electrical discharge in the brain. This region of abnormal discharge, which is identified by means of the electroencephalogram, is called the epileptic focus. The operation consists of surgical excision of the abnormal focus.

This operation not only gives benefit to these epileptic patients, but also provides a unique opportunity to study the excised epileptic tissue with the latest biochemical techniques and to compare its biochemical constituency with that of normal brain tissue. These studies already have been undertaken with interesting

results at the clinical center. It is now clear that the chemistry of the epileptic tissue is different from that of normal tissue. For example, one important chemical, normal to brain tissue (glutamic acid), does not, apparently, form in sufficient quantity in epileptic tissue, and another chemical (acetylcholine) does not form in sufficient quantity in reserve.

Furthermore, the Institute's clinical center staff is working with a substance which might make up the chemical deficiency in epileptic tissue, and this substance is now being given to a group of epileptic patients with intractable seizures. A preliminary report will be ready in the near future.

PROGRAM EMPHASIS AND OBJECTIVES

So far the background of the National Institute of Neurological Diseases and Blindness and some of the highlights of its activities have been presented in order to suggest some basic factors behind its program emphasis.

As can be deduced already, the emphasis of the Institute's program is on effective participation in a national research effort to find improved methods for the diagnosis, prevention, treatment, and rehabilitation of the common crippling disorders of the nervous system and its sensory endings, the eye and the ear—and to accomplish these ends in the shortest possible period of time.

To achieve this general goal the Institute has set up three clearly defined objectives: (1) to fill, as far as practicable, important gap areas in research and training; (2) to stimulate and participate in national collaborative efforts to combat crippling neurological and sensory disorders in instances where the unique facilities of the Institute can be used to advantage; and (3) to develop, at the clinical center, research teams which are equipped to make total attacks on specified disease areas, and to profit collaboratively from the large cross-fertilization of talent in both clinical and basic research at the National Institutes of Health.

GAP AREAS

Before 1952 there was an appalling number of gap areas in the research activities devoted to research in the broad spectrum of disability presented by neurological and sensory disorders. Since its activation, the Institute has contributed to a partial closing of some of these important gaps.

The largest gap at that time was the one created by lack of support for research grant applications in the chronically crippling neurological and sensory disorders. Although research grant requests still far exceed the Institute's present resources, the Institute is proud that from fiscal years 1953 to 1954 its support of research grants in the chronic long-term crippling disabilities such as cerebral palsy, epilepsy, multiple sclerosis, muscular dystrophy, cataract, glaucoma, and retrolental fibroplasia, has almost doubled the scientific research efforts in these areas. Only research in hearing loss—the most neglected area in medical investigation—showed no appreciable gain. A list of funds awarded for research grants in specific disease entities is given in appendix 1.

Progress has been made in the expansion of research in still another neglected area: the neurological aspects of cerebral vascular disease (stroke, apoplexy, etc.). This is a relatively neglected area of medical research, even though it constitutes a leading cause of death and is responsible for over a million persons crippled by hemiplegia in this country today.

The Institute is now supporting 18 promising grants in this field—an almost threefold increase over the support it was able to give in fiscal year 1952. Moreover, an additional basic attack on the problem is about to begin through the Institute's intramural program at Bethesda.

The largest gap area in the grants program of this Institute has been the need for better facilities in the graduate training of clinical teachers and researchers in neurological and sensory disorders. It is a generally accepted principle that research and training are mutually interdependent. Unless the scientist in the laboratory can rely on a pool of young scientists-in-training, his program will not survive for long. Similarly, if there is not a source of young clinical researchers-in-training, important laboratory discoveries may remain concealed for years before they can be tested in the clinic.

With minor exceptions, the current facilities in our medical schools for postgraduate training of teachers and clinical researchers in neurological disorders are seriously inadequate. Less than a third of all the country's medical schools have complete neurological units for teaching physicians and scientists. Many of our neurological teachers are not qualified neurologists, and many States in the United States do not have a single qualified neurologist.

This need for additional graduate training facilities in the area of ocular disease is almost as great. Although there are many practicing ophthalmologists in this country, yet only a few medical schools have adequate facilities for training clinical teachers and researchers in this field.

Funds have been made available to this Institute for the support of graduate medical training grants for the first time in fiscal year 1954. This sum ($400,000) now supports 23 programs among the total that may be submitted from our country's 80 medical schools. (A list of these programs is given in appendix 2.)

NERVE REGENERATION

For the past 2 years, this Institute has spoken of the promising research in the regeneration of nerve tissue of the central nervous system. There is good reason for this emphasis, for no other single investigation holds such potential for the control of a number of serious neurological disorders. If successful, it would provide a virtual cure for some forms of cerebral palsy, epilepsy, and for the crippling effects of poliomyelitis and early cerebral vascular disease (stroke). It offers the only real hope for substantial restoration of function to paraplegics and the many sufferers of other conditions which result from accident or injury to the nervous system during peace or war.

Regeneration of nerve tissue has always been considered impossible, and it was not until a few years ago that a prominent investigator at the University of Pennsylvania found that a certain heat-producing bacterial agent might provide the rebuttal to this classical theory. He clearly demonstrated that by the use of this agent, cut nerve fibers in the spinal cords of animals could be regenerated and the structural continuity of the cut fibers reestablished.

Since this first major discovery, little progress had been made to advance further research in nerve regeneration. The reasons have been lack of support and the paucity of facilities required for close collaboration between laboratory and clinical research. Such neglect of a promising lead creates an important gap area.

Whether the ultimate goal will be achieved cannot be predicted. Yet it is clear that the work must be actively pursued until a decisive answer is obtained.

It is expected that the decisive "yes" or "no" will be made at this Institute. Such a project is structurally suited to its program emphasis, where close collaboration between laboratory and clinical research is maintained. It is for this reason that Dr. William F. Windle, the scientist originally responsible for nerve regeneration, recently has joined the Institute's basic laboratory staff.

EPIDEMIOLOGY RESEARCH

Since there is no mandatory reporting system for chronic disease and disability, there are no validated figures on the morbidity of many of the disabling neurologic conditions. The estimates we have are based, in many instances, on spot checks and experience. To meet this deficit the Institute has organized an epidemiological section to gather more reliable statistics on the mortality and morbidity of crippling neurological and sensory disorders.

The activities of an epidemiological program, of course, goes beyond the collection of mortality and morbidity reports. Epidemiological research can disclose leads to the cause of disease. For example, the cause of pellagra was uncovered through epidemiological research.

In 1952 and 1953 it was reported that the incidence of amyotrophic lateral sclerosis was greater among the Chamorres on the island of Guam than in the United States and Canada. Amyotrophic lateral sclerosis, more commonly known as Lou Gehrig's disease because the noted baseball player died from this condition, is a serious neurologic disorder which kills its sufferers in about 3 years.

Inasmuch as the original reports from Guam appeared to be reliable, the Institute organized an epidemiological project to survey the incidence and mortality of the disease in Guam, Rota, Saipan, and Moen Island in the Truk Archipelago. The project was set up in collaboration with the Navy Department and the Department of the Interior. The preliminary survey (the first phase of the operation) was undertaken in the summer of 1953, and it was found that amyotrophic lateral sclerosis was 50 times more prevalent on Guam than the reported incidence in the United States. Now plans for the second phase of the project are in the making: to find out why the disease is so much more prevalent in Guam than in the United States, which may eventually lead us to its cause.

COLLABORATIVE PROJECTS

That the special facilities of the Institute have opened the way to the activation of collaborative efforts in special research areas has already been indicated in the previously mentioned grant-supported study of retrolental fibroplasia, and the intergovernmental collaborative project on amyotrophic lateral sclerosis on the island of Guam.

The Institute's own research program also presents opportunities for collaborative efforts otherwise difficult of achievement. Already several cooperative studies, especially in eye research, are being anticipated at several local hospitals. The Institute is now recognized as the focal point for such projects and is being approached from the outside to help meet problems that can best be attacked with the unique clinical center facilities.

At the present time, for example, the Institute is considering a request from a leading eastern medical school to test a new drug which in preliminary experiments indicates a remarkable ability to reduce intraocular tension in the eye and may, thereby, prevent patients with inoperable and uncontrollable glaucoma from going blind. If such a project can be undertaken by the Institute, the clinical center facilities and its access to selected patients should make it relatively simple to quickly determine whether or not another major step in the attack on blindness has been achieved.

There is also considerable outside interest in the establishment of a study at the Institute on the brains of cerebral palsied infants and children. This would permit the first attempt to correlate the clinical manifestations of the various types of cerebral palsy with the corresponding types of brain damage. Such a study is essential before the complete answer to cerebral palsy in infants and children can be given. The special pathological facilities of the clinical center, the nature of the Institute's present studies on cerebral palsy, the network of relationships already established by which such brains might more easily be obtained, makes the Institute the logical location for such a study, and it is hoped this project may be undertaken in the near future.

RESEARCH TEAMS

An important objective, as previously mentioned, is the development in the Bethesda program of clinical-research teams who are equipped with modern scientific tools to make comprehensive attacks on specific disease areas. The project in epilepsy, already described, demonstrates the point. Here the clinical neurochemist, working in coordination with the neurosurgeon, the neurologist and the electroencephalographer, make up the team whose collaborative efforts have already proved fruitful.

The largest team project now in action in the Institute's clinical program concerns a concerted investigation of the basic mechanisms underlying muscular dystrophy, myasthenia gravis, and various neuromuscular disorders. Here, under the general direction of a neurologist, the clinical basis of human muscle contraction and strength, and its alteration in muscular dystrophy and neuromuscular disorders, is being worked out by a muscle chemist; the abnormal exchange of ions in these disorders is being traced with unstable radioactive isotopes and interpreted by a biophysicist; and the evaluation of changes in muscle contraction and action potentials is made by a clinical neurophysiologist.

These clinical teams are not segregated groups but, whenever possible, interlock their activities. Each member of a team devotes a certain amount of his time to the program of another team where his specialized talents can be of use. The majority of the team members have both medical and basic science degrees, which preserves a solid link between clinical and laboratory research in clinical problems and an intimate liaison of the clinical program as a whole, with the program in basic laboratory research.

RELATED LABORATORY RESEARCH

These clinical research teams have as counterparts the laboratory groups of the Institute's program in laboratory research. Special problems arising in the clinical area are referred to the basic program, while discoveries made in the basic program are brought to the clinical area for testing.

Thus, for example, researchers in the basic program in the past year have developed a technique which for the first time makes possible quantitative measurements of blood flow through all the individual parts of the living brain. This technique creates a new opportunity to study individual diseases, particularly

cerebral vascular disease and cerebral palsy. Another study in the basic chemistry of demyelinating process (the breaking down of the sheath which insulates nerve fibers) may open new avenues of clinical application to multiple sclerosis and other crippling demyelinating diseases. The study on nerve regeneration, already mentioned, will continue and clinical applications will be made. These and many more projects are being developed in the Institute's basic program for early application to particular diseases.

The interlocking aspects of the clinical and basic programs do not stop at this categorical level but extend to every other Institute of the National Institutes of Health, thus reaping benefit from a unique cross-fertilization of talent.

HOPES FOR THE FUTURE

In the past 2 years, the testimony of this Institute has largely been concerned with the necessity for mounting a full-scale attack on the neurological and sensory disorders. This year, it can happily be said, the attack has been initiated, is proceeding according to plan, and several key objectives have already been taken.

This is not to say that the Institute's major goals are within easy reach. The battle, after all, has just been joined, and it should be mentioned that as science moves forward, the process of discovery, like victory, often uncovers problems as large as those resolved. Several key points in the offensive line, moreover, are still weak; the position of the intramural-research program and the graduate-training program require definite strengthening, and to fully be able to exploit weaknesses as they are found, other program areas also need reinforcement.

Yet there should be no question that the future can be very optimistic. As much as the actual achievements made and the opportunities which are opened up for the future, the strong surge of public interest and the concentration of scientific endeavor, both dedicated to discovery of the causes, prevention, and treatment of neurological and sensory disorders, represent the greatest promise for their ultimate resolution.

APPENDIX 1.—*Support of disease categories*

I. NEUROLOGIC DISEASE RESEARCH

	Fiscal 1953 funds		Fiscal 1954 funds	
	Projects	Amount	Projects	Amount
1. Cerebral palsy [1]	37	$296,924	50	$451,098
2. Epilepsy	11	89,959	24	263,979
3. Multiple sclerosis and demyelinating diseases	10	117,438	18	252,404
4. Muscular dystrophy and neuromuscular disorders	11	67,080	23	227,807
5. Other disorders of the nervous system	39	445,798	71	792,768
(*a*) Congenital malformations			2	7,358
Spina bifida			2	7,358
(*b*) General vascular disorders (excluding cerebro vascular)	17	170,822	18	162,543
(*c*) Infections	1	5,994	1	24,663
Poliomyelitis	1	5,994		
Encephalomyelitis			1	24,663
(*d*) Injuries to nervous system	4	36,373	22	302,646
Traumatic	3	16,373	15	146,752
Radiation	1	20,000	7	155,894
(*e*) Metabolic disorders	8	63,914	24	270,231
(*f*) Other (nonspecific)	9	168,695	4	25,327
Total	108	1,017,199	186	1,988,056

II. SENSORY DISEASE RESEARCH

1. Ophthalmic	30	$251,401	67	$484,393
(*a*) Congenital disorders	4	20,074	8	35,428
(*b*) Injury	1	1,134	2	10,950
(*c*) Infections and inflammatory diseases	4	38,095	6	62,076
(*d*) Metabolic and degenerative disorders	19	175,741	46	349,860
Cataract	3	17,168	5	38,610
Corneal opacities	3	33,522	2	17,468
Glaucoma	6	47,734	9	100,510
Senile blindness	1	12,000	2	22,284
Retrolental fibroplasia	2	3,250	13	59,279
Retinal detachment	2	32,999	4	29,664
Retinopathy	1	16,999	3	20,898
Fundamental to metabolic disorders (nsp)	1	12,069	8	61,147
(*e*) Neuromuscular disorders	1	6,042	2	3,381
(*f*) Hysterical amblyopia			1	6,316
(*g*) Research of public-health significance	1	10,315	2	16,382
2. Otologic research	5	60,987	10	88,590
3. Neurosensory disorders	6	44,709	16	151,426
Sensory disease research total	41	357,097	93	724,409
Neurologic disease research total	108	1,017,199	186	1,988,056
Grand total	149	[2] 1,374,296	279	[2] 2,712,465

[1] Includes injury and disease to the brain where dysfunction is predominantly motor.
[2] Reflects the amount of the grant award rather than the expended amount.

APPENDIX 2.—*Graduate medical training grants*

Institution	Type	Amount
University of Minnesota	Neurologic disorders	$11,619
Georgetown University	do	24,732
State University of Iowa	do	25,568
University of North Carolina	do	14,304
University of Vermont	do	15,000
Albany Medical College	do	17,469
University of Utah	do	13,264
Harvard Medical School	Ophthalmic disorders	16,980
Ohio State University	do	12,804
University of Chicago	Neurologic disorders	22,000
University of Oregon	Ophthalmic disorders	25,500
Western Reserve University	do	27,000
Johns Hopkins University	do	35,600
Washington University	Neurologic disorders	17,000
Columbia University	do	15,000
University of Kansas	do	14,300
Northwestern University	do	20,000
University of Cincinnati	do	9,720
Jefferson Medical College	do	15,120
University of Michigan	do	8,460
Louisville General Hospital	do	10,916
Washington University	Ophthalmic disorders	15,700
New York University	Neurologic disorders	17,640

RECENT EPILEPSY RESEARCH AT CLINICAL CENTER

Mr. BUSBEY. Dr. Bailey, I believe you have some rather special recent developments that you would like to tell the committee about.

Dr. BAILEY. Thank you. Mr. Chairman and members of the committee, I am especially grateful for this opportunity; because today I would like to offer some proof of certain remarks I made in my testimony last year. You may remember I stated last year that the development and discovery of certain new precision instruments, such as electroencephalography and the development of neurological surgery had contributed much to neurological research. In addition, another development was going along in biochemistry and biophysics, and I went so far last year as to suggest that if this development in biochemistry and biophysics on the one hand was united with the new developments in precision instruments, such as electroencephalography, and neurosurgery on the other hand would open new vistas of research in this area, and with it a new hope for cerebral palsy, multiple sclerosis, muscular dystrophy, epilepsy, and the many other crippling neurological conditions.

SURGICAL TREATMENT

In offering this proof, I would like to draw—and I think it is well in the interest of time entirely—from a case we had at the clinical center, with the aid of a few charts. Epilepsy is a common disorder; just as common as tuberculosis, and the only handicap of the epileptic is his seizures. Wipe out the seizures and the average epileptic looks, acts, and produces like any average man.

This man you see here [indicating] is a patient who was admitted to the clinical center as one of our first patients in September. He is from Arlington, Va. He is 39 years old and at birth he sustained a severe injury to the right side of his brain. Since the age of 5, this man has averaged 5 to 10 epileptic seizures a day, every day of his life. These seizures for the most part were the major type of attacks characterized by a cry, a fall, loss of consciousness, and then the

convulsion, first the tonic phase; a hard contraction of all body musculature, followed by the tonic phase; alternating spasms of different segments the body, associated with frothing at the mouth, biting of the tongue and lips, and sometimes loss of bowel and bladder control, and all of these coming in a series of violent jerks and shocks.

This man, as I said before, had averaged 5 to 10 seizures a day for 30 years. These seizures had not been controlled by any modern epileptic drugs. As a result, he never went to school; he never had a job; he never was able to get married. In fact, he was never allowed out of the presence of a guardian for fear that he might meet with a disastrous injury in one of his violent fits.

He came to us as a referral from the medical school of the University of Virginia. They had tried all of the modern antiepileptic drugs, which were sometimes quite effective, without success; and they asked us to admit him to our epileptic project in Bethesda.

We admitted him in September and did electroencephalographic studies on him. As you probably know, the electroencephalograph records the electrical beats of the brain in somewhat the same way that the electrocardiograph records the electrical beats from the heart, but in epilepsy there are volleys of abnormal focal discharges even when the patient is not having seizures.

From our studies, we found that the abnormal electrical discharges coming from the brain of this man were localized in a circumscribed area on the right side of the brain which corresponds to this pencil mark [indicating] on his scalp. In other words, they were not coming from all points on the surface of the brain as is general in epilepsy, but only from a localized area or focus, as we call it. Therefore, this man had focal epilepsy and in view of that he was a candidate for surgical interference and removal of that part of the brain from which these abnormal focal discharges were coming.

In the next picture as you see we have made a trapdoor in his skull, deflected the bone above as you notice in this area, on the lower part of the right side of the brain, known as the temporal lobe, and this is marked by this black line [indicating]. You will note it appears small and shriveled in comparison with the upper part of this part of the brain, which has a normal contour [indicating]. These large gaping areas around here are areas where the normal brain tissue would be if he had not had this injury at birth.

In the next picture we have applied special electrodes to the actual surface of the brain in order to more sharply localize the area from which these abnormal discharges are coming. These electrodes are in turn attached to the electroencephalograph and the usual recordings made.

In the next picture we indicate the part of the brain removed, which is somewhat larger than in the average case; in fact, sometimes it is quite small. In some cases, on pathological examination, we see no pathology at all; yet we get electrical recordings of focal abnormal activity. Here, however, the area of abnormal electrical discharge is large, so we had to remove practically the entire outer shell of the temporal lobe, leaving only the central core on the right.

BRAIN TISSUE STUDY

Mr. Chairman, this is not the end of our Bethesda project; it is merely the beginning. It is the part represented by electroencephalography and neurological surgery. We are not concerned with testing the value of surgical treatment in treating focal epilepsy. There are at least two other places in the United States where such effective surgery can be performed. What we are interested in you can see on the top of this chart, which is the study of epileptic tissue from the living brain. Therefore, in the next chart, we take sections of the brain which were removed at operation and within 5 seconds slice them with a special cutter or microtome which makes uniform slices, half a millimeter in diameter, of the brain sample. Remember the brain cells are still living in these slices and we have to hurry to incubate them in order to keep them alive. These slices are actually cut in what is known as a humid chamber to keep the temperature constant and moist and to keep the brain cells alive.

Our purpose in all this is to get sections of the living brain to test their chemical composition and see if it differs in any way from normal brain tissue; if so, can these differences be corrected in order to make the electroencephalogram of these patients normal and eventually eliminate epileptic seizures in man.

CHEMICAL DIFFERENCES IN BRAIN TISSUE

We are in a position right now to give preliminary answers to all these questions. We have made no official report as yet, but one will be made this week at the meeting of the American Academy of Neurology, at the Shoreham Hotel in Washington. I can say at this point there is a definite difference chemically between epileptic brain tissue and normal brain tissue. The difference is a deficiency in a certain substance which I believe robs the brain cells in the epileptic from their stability and results in these abnormal electrical discharges which you see here on the electroencephalogram and in the epileptic seizures which you see with your eye. This chemical difference between the epileptic brain and normal brain is in a substance known as glutamic acid. Glutamic acid is an element which is essential to brain activity. The brain of an epileptic, in all of the cases we have done—and we have operated on 25 of these patients—is only one-half in amount as compared to the glutamic acid in the normal brain.

GLUTAMINE AND ASPARAGINE

Now we come to the most exciting question of all—can we make the glutamic acid content of the epileptic brain equal to the glutamic acid content of the normal brain. If you give glutamic acid as a medicine to a patient with epilepsy, it has no effect on his epilepsy, for the very good reason, as we found out, that glutamic acid does not diffuse from the blood into the brain, which indicates that the glutamic acid found in the brain is actually manufactured by the brain cells themselves.

Since glutamic acid will not pass from the blood to the brain we went on to search for some compound of glutamic acid and another substance which might pass from the blood into the brain and then break down into glutamic acid. We have found this substance in a glutamine. Glutamine is chemically known as amine of glutamic acid.

Glutamine will pass from the blood into the brain and within the brain cells it joins with another acid called alpha keto glutaric acid and together they break up into two molecules of glutamic acid, and thus elevate the glutamic acid content of the brain cells.

The next question is: will glutamine—and I have a sample here; this (indicating) is glutamine, a very innocuous looking powder, but probably the first brain vitamin ever produced—will glutamine control the abnormal electrical discharges in the electroencephalogram and will it control epileptic seizures in man.

I think I can illustrate this best with the next chart. You must remember that in all of the antiepileptic drugs we have today, while many of them are effective in controlling epilepsy, they never change the abnormal electrical discharges coming from the brain; they never affect the fundamental nature of epilepsy; they act solely as sedatives or depressants of nervous activity; in other words, they do not eliminate the tendency to epileptic seizures, but merely conceal it.

In this chart (exhibiting) you have a person with electroencephalographic abnormality before and after the use of glutamine. This is a case of a 9-year-old girl who was averaging 10 seizures a day and they could not be controlled by any of our modern anticonvulsive drugs. Here (indicating) you will see an analysis of the electroencephalographic abnormalities before treatment, which is portrayed by humps reaching up as high as 35 percent abnormal—and ordinarily in electroencephalographic tracings of epileptic patients they never go above 50 percent—and the humps of abnormality in this patient were reaching peaks about every 11 minutes. This line in the middle (indicating) represents when we started giving glutamine by vein, intravenously. You will notice within 7 minutes that the activity was below 10 percent abnormal and is still falling at the end of 21 minutes—it is not represented on that chart, but within 24 hours all of the abnormalities fell into what could be, and this patient, who was averaging 10 seizures a day, did not have a single seizure that day. When the treatment was stopped, her seizures returned.

We had to stop the treatment because, remember, glutamine is a natural biological found in the brain of all normal mammals; it is extremely difficult to obtain in large quantities, so we had to stop the treatment.

In view of the expense of glutamine and the difficulties of obtaining it, we looked around for a substitute which might be cheaper and more stable so that it could be given by mouth. We found this in a substance known as asparagine. Asparagine is the chemical counterpart of glutamine, only found in plants rather than animals.

This [indicating] represents the electroencephalogram of this same patient after she had returned to the abnormal state when the glutamine treatment had been stopped. This [indicating] represents the electroencephalographic tracings of this patient 2½ months after the beginning of asparagine. An inexperienced eye can detect the difference between these two charts. These tracings in the first chart, as you will note, have in all leads a high amplitude, an irregular rhythm, and the characteristic spike and dome formations of epilepsy, which you see here [indicating], and those tend to come in bursts, which is very typical of an epileptic encephalographic record.

In this chart after treatment [indicating] you note no striking spike and dome formations; a very regular rhythm for a girl of this

age and we can call this [indicating] a normal electroencephalogram. This patient for the last 2½ months has not had a single epileptic seizure. Previously she was averaging 10 a day.

Remember that these substances (glutamine and asparagine) are not drugs; they are normal substances found in every brain; they therefore, have no toxic reactions. We have tried this now with about 12 patients and in each case there has been a reversal of the electroencephalogram toward normal, and there has been a great reduction or total elimination of all epileptic seizures.

We have good reason to believe that glutamine, an actual animal product, acts better than asparagine because the use of asparagine in patients has been more effective by the addition of glutamine.

I think, Mr. Chairman, that we have broken the mysterious barrier which has prevented a scientific explanation of epileptic seizures, and I think that this research will go way beyond the control of epilepsy. Already in some of our patients we have noted an increase of alertness and an increased intellectual performance. I offer this as one proof of what we found this last year. We have many more, but since this project is being undertaken at the Clinical Center I am very close to the problem, and I thought I could illustrate it more clearly than the others.

I hope I have proved my point.

Mr. BUSBEY. Thank you, Dr. Bailey. The committee is always gratified to have such wonderful reports of progress, at any of the Institutes, such as you have demonstrated this morning.

Dr. SEBRELL. If I may add a word here, if this holds out with the great promise it now appears to hold in the control of this disease of epilepsy, this alone will pay back to the American people many times the cost of this Clinical Center that this committee was wise enough to support.

Mr. BUSBEY. There is no doubt about that. This is one of the fields of research which I personally have thought for many years was neglected too long. The discoveries that are being made in the last few years are ample proof, I think, not only to the committee and the Congress but to the people of the United States, that they can expect great possibilities in this field.

Dr. BAILEY. Thank you.

BUDGET REQUEST

Mr. BUSBEY. Now, Dr. Bailey, your request for fiscal 1955 is $4,763,000 and that is $263,000 more than was appropriated in 1954. What was your original request, for neurological and blindness activities, to the Bureau of the Budget?

Dr. BAILEY. The original request was $5,537,000, later revised to $4,763,000.

Mr. BUSBEY. Then this request is $11,000 more than you requested of the Bureau of the Budget?

Dr. BAILEY. Yes, sir.

Mr. HARLOW. $4,752,000 is a revised estimate, and $4,763,000 is the budget allowance.

Mr. BUSBEY. That makes $11,000 in excess of what you really asked the Bureau of the Budget for; is that correct?

Dr. BAILEY. Yes, sir.

NUMBER OF VOLUNTARY ORGANIZATIONS

Mr. BUSBEY. On page 2 of your statement you mention that:

> Ten years ago, there was but one organization concerned with research into neurological disorders—the National Foundation for Infantile Paralysis. Today, there are more than 10 voluntary health organizations and professional societies concerned with this problem.

Is that an advantage in your estimation, or would it be to the advantage of everyone to have these various voluntary organizations drawn into one group?

Dr. BAILEY. In a way I think it is an advantage to have organizations built around a particular disease. However, we have a problem and our Institute covers such a large spectrum of diseases that it is advisable to have a national committee in order that a national research program could be established and the general size of the problem would be evaluated. As you will notice later, such a national committee in the field of neurological diseases has been established, which is composed of various representatives from all of these voluntary health agencies that are interested in neurological problems. This has been a great help in actually devising a national program for the total problem.

Mr. BUSBEY. How binding is any action of this national committee on any of the voluntary agencies?

Dr. BAILEY. It is not binding at all. They join voluntarily. They have been very interested, but there are no binding regulations whatsoever.

Mr. BUSBEY. But each one of the voluntary organizations is represented on the national committee?

Dr. BAILEY. That is correct. They continue with their local programs the same as before; but when it comes to problems of national interest in research and training, then they refer it to the national committee.

Mr. BUSBEY. On page 4 under the heading "Present Status of Our Knowledge," the last sentence reads as follows:

> The award in rapid succession of the Nobel prize in science to seven neurologic investigators bears witness to the significance of these achievements.

Were any of those seven in the National Institutes of Health?

Dr. BAILEY. No. You see, our Institute was only founded in 1950. I beg your pardon; there was one who was at the National Institute of Health for a while, as I understand. Dr. Sebrell can correct me, because it was before my time, but that was Dr. Albert Szcent Gyorgi.

Dr. SEBRELL. Mr. Chairman, we have had at the National Institutes of Health as guests scientists or caseworkers at various times three Nobel prize winners. We have never had a member of the staff of the National Institutes of Health awarded the Nobel prize, however.

DETAILS REGARDING EXAMPLES OF RESEARCH PROGRESS

Mr. BUSBEY. Dr. Bailey, would you be so kind as to furnish for the record an expansion of the 9 examples you set forth in your prepared statement starting on page 5 and going over to page 9. I think it would be helpful and interesting if we could have those expanded a little bit in the record.

Dr. BAILEY. I will be very glad to do so. Perhaps you would like to have me omit the epileptic one which was the project I demonstrated.

Mr. BUSBEY. Yes; there is no need of repeating that.

(The requested information follows:)

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, PUBLIC HEALTH SERVICE

The material requested for the record on research progress in neurological and sensory disorders follows.

CEREBRAL PALSY

1. Prevention

Kernicterus or erythroblastosis foetalis is a form of cerebral palsy occuring in about 2,000 newborn children every year. Its symptoms are severe jaundice, appearing within the first 48 hours after birth; associated with paralysis, grotesque involuntary movements, and some mental defect. These neurological symptoms are due to damage to deeply situated structures in the brain.

Kernicterus results from blood incompatabilities, involving the so-called Rh factor. The Rh factor, a still undefined substance of the blood, may be present in a given individual (Rh positive) or absent (Rh negative). Here the blood cells of an Rh positive infant, still unborn, invade an Rh negative mother's bloodstream, the mother's blood produces antibodies, substances which fight and often destroy the Rh positive blood cells. These antibodies, in turn, invade the bloodstream of the unborn child, and while the child's bodily defense mechanisms may control this attack until birth, at birth itself a failure of defense occurs. The antibodies from the mother destroy the blood cells of the infant, resulting in anemia and jaundice, which causes irreversible damage to important parts of the brain.

The almost total elimination of Kernicterus now seems possible as a result of work performed at the Children's Medical Center, Boston, Mass., by Dr. Louis Diamond, a grantee of the National Institute of Neurological Diseases and Blindness. It has been found that multiple-exchange transfusions (replacing the infant's blood with new blood) are capable of saving the child from any brain damage with its serious consequences to body and mind.

Previous efforts to treat kernicterus failed due to the fact that multiple small transfusions or a single exchange transfusion produced a clinical transformation which seemed like a cure but, which later evaluation of the child's capabilities indicated, were unsuccessful. The secret of preventing kernicterus, as Diamond discovered, is evaluating the need and time for exchange transfusions.

Dr. Diamond and his colleague have found a method of measuring in infants an element of the bile (bilirubin) which is produced by the destruction of blood cells by the mother's antibodies. This bilirubin measurement indicates the severity of the jaundice and determines the need for exchange transfusions. It has been found that bilirubin levels of more than 20 milligram percent are dangerous. Such a measure, of course, is not only necessary for determining when transfusions should be given but also in avoiding unnecessary transfusions which may be precarious to the child.

The significance of this work may be measured in children saved from both death and cerebral palsy. It may be estimated that death from kernicterus occurs in about 1,000 cases yearly and that 1,000 cases live with permanent disability, representing about one-tenth of all the cases of cerebral palsy occurring annually. Prevention of kernicterus is even more significant than this figure would indicate. The living victims of this disorder are almost damaged very severely, with the possibility for successful rehabilitation extremely limited, and many cases require either permanent nursing or institutional care throughout their lives.

2. Treatment

Among the 10,000 cases of cerebral palsy born each year, a large proportion suffer a severe hemiplegia (arm, leg, and trunk paralyzed on the same side), and severe epileptic seizures at the same time. These cases are not subject to medical control or rehabilitation.

The cause of this form of cerebral palsy frequently is damage to the motor cortex of the brain (part of the brain's outer surface). In preliminary studies conducted at the University of Minnesota, removal of the area of motor cortex involved in a number of cerebral palsy cases has resulted in considerable amelioration of the condition. All patients so surgically treated at Minnesota, ranging

from 16 to 38 years of age, who had been hemiplegics from childhood on, were able to walk and talk. In followup studies of from 4 months to 5 years, convulsions were also found to be eliminated in all but 2 cases, and in these, seizures were markedly reduced. In all cases, no loss of sensation or of "position" sense occurred.

To what degree this operative procedure may prove successful in a majority of hemiplegic cerebral palsy cases remains to be tested. The preliminary success in this removal of half the cortex suggests that deeper motor portions of the brain must remain intact and that the other half of the cortex is capable of taking over some of the functions of the portion excised.

RETROLENTAL FIBROPLASIA

Retrolental fibroplasia is the leading cause of blindness in children and it is estimated that from 700 to 1,100 cases occur each year. Approximately 50 to 60 percent of all premature babies weighing 3½ pounds or less at birth incur the disorder, and in almost half of these the attack on the retina progresses to complete loss of vision.

Possibly the most significant discovery during the past year in the field of blindness has been the evidence presented by a grantee of the Institute that retrolental fibroplasia may be caused by the prolonged and high oxygen which is normally administered to premature infants in hospital nurseries. While this data is not yet conclusive, because the group of premature children investigated was too small, the statistics have warranted broad attention. Of 65 infants, of whom 23 received high oxygen (65 to 70 percent), in periods from 4 to 7 weeks, 17 developed retrolental fibroplasia to a partial loss of vision, and 5 to complete loss of vision. Of 37 infants receiving low oxygen (35 to 40 percent) only 6 cases incurred the disorder, and none suffered even partial loss of vision as compared to those under high oxygen. While progress on this study is encouraging, final results are not yet available.

MUSCULAR DYSTROPHY, MYASTHENIA GRAVIS, AND OTHER NEUROMUSCULAR DISORDERS

The nature of neuromuscular disorders

Neuromuscular disorders constitute a major public-health problem. Some, such as muscular dystrophy, are rapid killers, while others, such as multiple sclerosis and Parkinson's disease (creeping paralysis), result in a prolonged yet progressive paralysis in which the patient may live for years, but only as an expanding burden to himself, to the community, and to the Nation's economy.

Neuromuscular disorders may arise from a primary disturbance anywhere along the neuromuscular axis from the brain to the spinal cord and peripheral nerves to the muscle. Thus, in Parkinson's disease and cerebral palsy the brain is primarily affected; in multiple sclerosis, the spinal cord; in neuritis, the peripheral nerves; in myasthenia gravis there is a failure in chemical transmission at the point where the nerves become imbedded in the muscles (nerve-muscle junction); and in muscular dystrophy and myositis the primary pathology is in the muscles.

Among these disabilities also are the many paralytics whose condition arose as a result of accident and injury to the nervous system in peace or in war. These disabilities make up about 10 percent of all civilian accidents and war casualties.

Present status of our knowledge of neuromuscular disorders

With the exception of infantile paralysis and other paralytic disorders of infectious origin, there is much medical ignorance about these crippling disabilities. Substantially, we know no more about multiple sclerosis than when Charcot first described it in 1880, nor about muscular dystrophy than when it was first identified by Duchenne during the same epoch. We still have no answers for the cause, or treatment, of the vast majority of neuromuscular disorders. And we have no specific remedy for neuromuscular disability due to injuries, for central nervous tissue, once it is definitively damaged, never regenerates.

Until recently, the investigation of neuromuscular disorders has been a badly neglected field of medical research.

The research problem

The complexity of the problem posed by neuromuscular disorders, however, may be more apparent than real; because, despite their variegations, many of these disorders appear to have some common denominator or underlying basic process.

Thus, for example, the degeneration of myelin (a fatty sheath which insulates the nerve fiber tracts of the spinal cord and brain) is the essential pathologic process not only of multiple sclerosis but also of many other neurologic conditions. Again, several types of cerebral palsy appear to arise from related factors influencing the embryonic growth of the nervous system. Finally, a common denominator in neuromuscular disabilities resulting from accident and injury lies in the fact that injured nervous tissue, unlike other tissues, for example, the skin and the liver, will not regenerate.

Lately it has become evident that science has developed to a state where it can profitably explore several common denominators of neuromuscular disease, and in this way open up new therapeutic vistas to a large number of these conditions.

When the program of NINDB was activated in 1951, a few research studies of the common processes underlying various groups of neuromuscular disease began. When the appropriation of the Institute was increased in 1953 some of these studies already had resulted in discoveries which had been described elsewhere, and new studies were further introduced both in the grants program and in the program at Bethesda. As a result, today important attacks are being made on the chemistry of myelin, nerve regeneration, on factors which might influence the embryological development of the nervous system, and on other processes fundamental to neurologic disease.

Design of the muscular dystrophy project at Bethesda

In approaching the problem of neuromuscular disorders, the Institute decided to make a total attack on a large rapid area of research in neuromuscular disorders; to apply to this project the latest techniques developed in biophysics, biochemistry, and atomic medicine; and to design the attack in such a way as to achieve concrete results as quickly and as economically as possible.

The area of neuromuscular disease chosen for the attack was muscular dystrophy and neuromuscular disorders in which the primary damage is at the far-end of the neuromuscular axis, that is, in the muscle or the nerve-muscle junction.

The point of departure of the project lies in bringing to clinical testing certain discoveries made in laboratory research and in reinforcing the investigation by the use of unstable radio isotopes and new biochemical techniques. For example, it had been demonstrated previously that stimuli from a nerve to a muscle fiber depolarizes the membrane of the muscle fiber (takes on negative electrical changes). This depolarization of the muscle fiber membrane activates a complex protein (actomyosin), which supplies the contractile power of muscle, and causes muscle fibers to contract violently in vitro if another compound (adenosine triphosphate) is added, and assuming a proper ionic balance, particularly of potassium, can be maintained.

These laboratory findings provided a springboard for developing a clinical investigation of the factors that influence tensile strength of human muscle, and the significance of the distribution and utilization of potassium ions in neuromuscular disease.

The project in action

The ultimate target of the project is muscular dystrophy, both for practical reasons the first group of patients studied were those with myasthenia gravis. The investigative procedure is as follows:

After a complete neurologic examination, the patient's neuromuscular capacity is objectively evaluated by a specially constructed mechanograph and by total electromyography. Next, the patient is given predetermined doses of radioisotopes (K_{42} and I_{131}), followed in 24 hours by the taking of a muscle biopsy. Part of the biopsy material is given to the neuropathologist for pathologic verification of the disease being studied; another part to the muscle chemist to test microscopically the contracting power of the actomyosin muscle threads under varying physiological and chemical conditions; and the remainder of the biopsy material is used to determine the quantity of intracellular and extracellular potassium and sodium in the muscle by intricate methods of radioactive counting. These results then are balanced against the total sodium and potassium in the patient's blood and urine to obtain a complete picture of the distribution of potassium in the body.

So far these determinations have been made on patients with myasthenia gravis, myositis, congenital myotonia, familial periodic paralysis, myotonic dystrophy, and muscular dystrophy.

Preliminary results to date

In the first 5 months of the operation of this project, several interesting preliminary findings have been made. Since the design of the project was new, the first findings concern the construction, perfection, and standardization of testing equipment and methods. These results may be summarized as follows:

1. The construction and standardization of an apparatus for measuring changes in muscle contraction and action potentials, free of influencing factors such as motivation.
2. The standardization of a method for using radioisotopes and radioactive counting for the evaluation of the ionic exchange of potassium and sodium in neuromuscular disease.
3. The standardization of a method for measuring microscopically the contractile power of human muscle threads.
4. The construction of an electronic computer to analyze the curves of potassium and sodium egress in human muscle.

In addition to this progress in the standardization of equipment and methodology, some clinical observations have been made, which are summarized as follows:

1. The potassium in the muscle of patients with myasthenia gravis is abnormally high. This indicates that myasthenia gravis is more than a simple chemical disturbance at the nerve-muscle junctions, as was previously supposed.
2. The potassium content in the muscles of patients with myotonia dystrophy is low, whereas it is normal in the blood serum. In another study it has been demonstrated that in the case of patients with periodic familial paralysis, the potassium content of the blood serum is abnormally low and abnormally high in the muscle.
3. In the early stages of muscular dystrophy, a substance, probably a fat-protein complex, is suspected of invading the muscle cell.

It is still too early to attach significance to these preliminary findings, but they are highly suggestive that a common denominator of abnormality may also obtain in muscular dystrophy and neuromuscular diseases, occupying the lower end of the neuromuscular axis, and that this common denominator concerns, partly at least, a defect in the distribution and utilization of potassium.

Already a form of potassium has been administered to one patient with myasthenia gravis. Further clinical trials will be made as the project progresses.

GLAUCOMA

Glaucoma is a serious blinding disease of the eyeball which is present in a chronic, nonsymptomatic form in 2 percent of all people over age 40. It is characterized primarily by an abnormal increase in pressure within the eye. The effect of this increase in pressure is to produce a gradual shutting off of the blood supply to the retina with resultant death of the cells of the retina and inevitable blindness.

In an effort to forestall the inexorable effects of this dread condition, scientists have conducted an exhaustive study of the mechanisms involved in the formation of the intraocular fluids and the maintenance of pressure within the eye. It has been found that one of the main constituents of this fluid is sodium bicarbonate. This substance is present in the eye in much higher concentration than in the blood and is intimately associated with the rate at which fluid is formed within the eye.

The accumulation of sodium bicarbonate in the eye is due to the action of an enzyme "carbonic anhydrase." (The discovery of this enzyme by Roughten several years ago is an exciting story in itself, because this investigator postulated the existence of such a substance on purely theoretic grounds and then set about to effect its discovery and characterize its chemistry.)

Recently, a group of scientists at Johns Hopkins University (1) demonstrated that a new drug known as Diamox serves as a powerful inhibitor of carbonic anhydrase in the eye. This results in a marked and prompt lowering of the intraocular pressure. Thus far the new drug has been useful chiefly in bringing about a lowering of the pressure preparatory to surgical treatment. It is possible that further work will demonstrate the feasibility of using the drug for prolonged treatment, but this cannot be done until more data is available on possible toxic effects from chronic administration (2).

Another interesting and highly useful effect of the new drug is its ability to bring about restoration of fluid in the anterior chamber following certain types of intraocular surgery (3). The means by which this is accomplished is not clear on theoretic grounds and requires further investigation. Nevertheless, this important observation points up the broad utility of the drug in therapy and stimulates

further investigation of this important new substance and related compounds. It is probable that a more effective chemical similar to Diamox will be found which can be used for long-term control of the intraocular pressure in glaucoma.

This discovery represents an important and entirely new attack on the problem of glaucoma. We may expect that further work along these lines will lead to an increased underatanding of the fundamental physiology of this disease as well as to greatly improved forms of therapy.

EPILEPSY

The necessity for understanding the direct cause or causes of epilepsy and of, thereby, having the opportunity to change or modify the abnormal electrical outbursts in the brain which characterize seizures has long been recognized. To study causes, however, has been difficult, and only recently has it been possible, through the development of a surgical operation for seizures, to obtain living epileptic tissue which may be analyzed against the normal standards which exist for normal brain tissue.

At the National Institute of Neurological Diseases and Blindness, a method has been devised for undertaking this study, and it has been found that two natural elements appearing in certain standard quantities in normal brain tissue appear in lesser quantities in epileptic tissue. These two chenical elements are glutamic acid and acetylcholine.

Neither of these two elements, however, can be administered so they can rectify the abnormal metabolism of epileptic tissue, and the problem has been to find an agent which could penetrate the blood-brain barrier in sufficient quantity to effect such a change. It seems possible at this time that such an agent has been found. Preliminary tests indicate that the abnormal electrical activity of the brain occurring in seizure, as manifested in electroencephalograph recordings, can be restored to normal or almost normal through use of this agent. Just what control may be exerted over actual clinical symptons of epilepsy remains to be thoroughly tested.

One of the major difficulties in the development of new drugs for the control of epilepsy has been the inability to test these drugs properly on animals. Of singular importance has been the establishment, by a grantee of this Institute, of the electroshock threshold in rats; i. e., the amount of electrical current necessary to produce convulsions. This has provided scientists with a standard procedure by which experimental antiseizure agents may be studied for possible application in man.

This finding has already led to interesting results in the development of potentiating agents—drugs which in combination with those already effective in controlling seizure can either speed their action, make the action endure longer, or else necessitate smaller dosages whereby possible ill effects obtained on higher dosage may be eliminated. Preliminary results indicate that desoxycorticosterone, one of the adrenal hormones, greatly increases the effectiveness of dilantin and phenobarbital in the control of epilepsy, sometimes extending their controlling activity 10 times as long. New drugs, such as mysoline and themisone, also indicate promise for control of seizures not obtainable through other substances.

The establishment of the electroshock threshold in rats has also permitted other investigators to study just how present antiepileptic agents act in the body. It has been found, for example, that the most important organ associated with the metabolism of dilantin and phenobarbital is the liver. When the liver is damaged, both dilantin and phenobarbital are less rapidly excreted than when the liver is normal and thereby have a longer action. It is possible that this finding may lead to a synthetic procedure which will have similar effects.

PARKINSONISM

Parkinsonism or shaking palsy affects approximately 1½ million persons in the United States. A slow progressive disorder of the central nervous system, it is characterized by muscular rigidity, bodily tremors, slow, paucity of movement, abnormal posture and loss of automatic movement.

While there is no method available for control of this condition, drugs have been available which can ameliorate some of the major symptoms. These belladonna alkaloids, while they reduce rigidity, salivation and in some cases tremor have an extremely low point of tolerance. They produce dryness of mouth, blurred vision and especially in older patients cause confusion or delirium.

New drugs developed recently, however, cause less serious side effects, and maintain better control over the symptoms of Parkinsonism than has hitherto been possible. Both Artane and Panparnit, alone or sometimes in combination with older drugs or with antihistamines, frequently provide effective treatment, moreover, where older preparations produce no therapeutic results whatsoever.

Greater hope for control of Parkinsonism has also emerged with the development of a new surgical procedure at Bellevue Hospital in New York City. Successful results have been in a number of cases of Parkinsonism where the anterior choridal arteries of the brain have been ligated. These two arteries are branches of the internal carotid which supplies blood to the basal ganglia of the brain. The basal ganglia are a group of nerve cell bodies which are presumably responsible for the occurrence of rigidity in Parkinsonism. This work is being continued and followups of patients already treated are being conducted to determine the permanent effectiveness of the treatment.

MULTIPLE SCLEROSIS

The average time before diagnosis of multiple sclerosis can be established is about 6 years. This failure to diagnose the disorder in its early stages delays symptomatic treatment and frequently exacerbates the condition.

Promise of an accurate means for early diagnosis now may be realized with the recent finding that an abnormal elevation of gamma globulin exists in the spinal fluid of multiple sclerosis patients. This abnormal elevation occurs but rarely in other neurological disorders, except for neurosyphilis, and its occurrence therefore is highly suggestive of multiple sclerosis.

Present difficulties in separating the several proteins of the spinal fluid, including gamma globulin, prevents the establishment of this diagnostic method as common practice. The technique of filter-paper electrophoresis, now undergoing investigation by a grantee, promises the most satisfactory method utilized to date. This technique if perfected should also permit more careful study of the lipoproteins of the spinal fluid in both normal states and in multiple sclerosis. It is this lipid or fatty protein material which is the seat of destruction in multiple sclerosis and its further understanding would cast light on the causes of the disorder.

AMYOTROPHIC LATERAL SCLEROSIS

In 1952 and 1953 it was reported that the incidence of amyotrophic lateral sclerosis was greater among the native Chamorros on the island of Guam than in the United States and Canada. Amyotrophic lateral sclerosis, more commonly known as Lou Gehrig's disease because the noted baseball player died from this condition, is a deadly neurologic disorder which kills its victims in about 3 years—and the incidence of the disease appears to be increasing.

Pathologically, amyotrophic lateral sclerosis, which was first described by Charcot in 1869, can be broadly regarded as a combination of multiple sclerosis and poliomyelitis. Like multiple sclerosis, the long fiber tracts from the brain and spinal cord to the voluntary muscles degenerate. On the other hand, like in poliomyelitis, the large motor cells of the spinal cord and brain stem also are affected. In fact, the disease has been called chronic poliomyelitis by some investigators. It is the involvement of the motor cells of the brain stem, particularly those controlling breathing and swallowing, which most frequently leads to the deaths of these patients.

Inasmuch as the original reports describing the extreme prevalence of amyotrophic lateral sclerosis on Guam, appeared to be reliable, the Institute organized a project to survey the morbidity and mortality of the disease on Guam, Rota, Saipan, and Moen Island in the Truk Archipelago. The project was divided into two phases. The first phase was to check and evaluate the morbidity and mortality of the disease in this area as compared to that in the United States. Then if the disease was far more prevalent on Guam, the second phase of the project was to study the intrinsic and extrinsic factors on Guam which might explain the relatively high incidence of the disease on this island and which might eventually give us a clue to its cause.

Moreover, a clue to the etiology of amyotrophic lateral sclerosis might also increase our knowledge concerning the basic mechanisms of multiple sclerosis and the progressive muscular atrophies.

Preliminary results

Because the program involved problems of transportation and required the use of local hospital and laboratory facilities in Guam, a cooperative project was

developed with the Navy Department and the Interior Department, which controls the Government of Guam.

The preliminary survey of morbidity and mortality rates (the first phase of the operation) was undertaken in the summer of 1953. This study revealed that amyotrophic lateral sclerosis was almost 50 times more prevalent on Guam than the reported incidence in the United States.

Now, plans for the second phase of the project are under way, namely: To find out why the disease is so much more prevalent in Guam than in the United States, which study may eventually lead us to its cause.

It is anticipated that a preliminary report on the second phase of the project will be available in April 1954.

MYASTHENIA GRAVIS

Approximately 30,000 persons in the United States suffer from myasthenia gravis. A neuromuscular disease, characterized by progressive muscular fatigue, a little more than a decade ago no treatment whatsoever for the condition existed.

At the present time, the symptoms of myasthenia gravis can be ameliorated by prostigmine. This drug, however, suffers from several serious limitations. It may cause unpleasant side effects; it may have to be taken every hour or two a day, 24 hours a day, and after continuous therapy its beneficial effects may apparently decrease in some patients.

Three drugs, however, have recently been developed which indicate some possibility of controlling myasthenia gravis in a satisfactory fashion. Octomethyl pyrophosphoramide, for example, controls symptoms of the disorder for a longer period of time than prostigmine, thereby eliminating the necessity for continuous dosage; its high toxicity, however, demands great caution in establishing a dosage schedule. Mestinon also acts for longer periods than prostigmine and with less pronounced side effects; on the other hand, it does not seem to strengthen the patient as well as optomal doses of prestigmine. Tensilon chief advantage is its great rapidity of action (usually affecting the patient a minute after administration), but its duration of action is also less than the other agents. Still in an experimental stage, it may be expected that these drugs used together can provide superior therapy to prostigmine and may, additionally, furnish a clue as to the mechanisms of myasthenia gravis and to its eventual cure.

RELATION OF WORK TO WORK OF BUREAU OF VITAL STATISTICS

Mr. BUSBEY. Now on page 13 of your statement you describe your work on "epidemiology research"; is this getting into the field of the Bureau of Vital Statistics?

Dr. BAILEY. It is in a way; it is not in another way. We have a problem with neurological disorders in that they are not reportable. There is no mandate to report the incidence of neurological disorders; therefore, we have some difficulty in making surveys. The actual purpose of this project was not so much an epidemiological survey of the prevalence of amyotrophic lateral sclerosis on the island of Guam and in the United States, but it arose from a report that we heard that the incidence was much greater in Guam than in the United States. This means a lot. First of all, why? Are there any external factors or internal factors in Guam that would make the incidence of this disease higher? So, first of all, we had to confirm the report to see if it was true, and we sent one of our investigators out in a project which was done in collaboration with the Navy Department and the Department of the Interior. We could not swing the whole project ourselves. He found out it was 50 times as prevalent on Guam as in the United States.

That is very interesting, because amyotrophic lateral sclerosis, a neurological disease or Lou Gehrig's disease as it is sometimes called, is a terrible disease. The person becomes paralyzed and the paralysis finally reaches his ability to breathe and to swallow. These patients

almost invariably die within 3 years, but it is a torturous type of death. And we thought "Now, if it is 50 times greater in Guam than in the United States, there must be some reason and the one place to find out the reason would be in Guam." So we have gone out there and are now studying whether factors of nutrition, infection and genetics can influence the course of the disease on the island of Guam, comparing the results with a similar group in the United States to see if we can come to some clue to the cause of this disease and which, by the way, might give us some clue to the cause of multiple sclerosis, which is a milder disease than amyotrophic sclerosis. In amyotrophic lateral sclerosis you have a clinical combination of multiple sclerosis and polio; you have the stiff type of paralysis that you find in multiple sclerosis, and the soft type of paralysis with atrophy that you find in polio.

WORK IN CONNECTION WITH METOBOLIC DISORDERS

Mr. BUSBEY. On pages 1 and 2 of the appendix I notice you have research projects on "metabolic disorders" and on "metabolic and degenerative disorders." Immediately, of course, there comes to my mind the question of any overlapping or duplicating of the work of the Institute on Arthritis and Metabolic Diseases.

Dr. BAILEY. I do not think there is any overlapping or duplication. We frequently call on them in metabolic disorders and they frequently call on us when metabolic disorders reach the nervous system in cases they are studying.

Mr. BUSBEY. You are satisfied, then, there is no duplicating or overlapping there in that work?

Dr. BAILEY. Yes; I am very satisfied.

WORK IN FIELD OF DEAFNESS

Mr. BUSBEY. On page 2 of the appendix under "Otologic research," I notice you are expanding that from 5 projects to 10 projects. What do you contemplate doing in that field, Doctor?

Dr. BAILEY. We hope to have a program in this field. As you know, the research in hearing defects is probably the most neglected field of medicine. This represents almost the entire researching going on in the whole country. The interest from the outside does not seem to be very large. We cannot with our present facilities set up a program at the clinical center. We have made some progress, but it is a way out of proportion to the disabilities you encounter resulting from deafness and hearing defects.

Mr. BUSBEY. What have you been doing in the field of hearing ills due to long exposure to loud and continuous noises in industrial plants?

Dr. BAILEY. We have been doing very little. Some industrial plants are doing it; but, as you know, with these research projects we have to wait for applications to come in. If they do not come in for that type of project, there is not very much we can do about it, except to comment on the fact of the neglect in this field.

Mr. BUSBEY. What work is being done by the Division of Occupational Health in this field?

Dr. BAILEY. There are some projects. One of the things actually where the most money is being spent right now in this field of investigation is by the Navy Department on the effects of high sound and ultra sound and high altitude on hearing.

Mr. BUSBEY. Is there any other work being done on that outside of the United States Public Health Service, and the Navy?

Dr. BAILEY. It is so small that it is not worth mentioning. It is a very serious gap.

TRAINING GRANTS

Mr. BUSBEY. I notice in referring to the committee print that the training grants have increased about 10 times since 1953. To what is that due, Doctor?

Dr. BAILEY. That is due I think largely to the fact that previously those had not been granted. Training grants actually is the most serious hole in our program, particularly in the area of clinical research. There are only 275 qualified neurologists in the entire country, as against a patient population of 20 million. Many medical schools, some of the leading ones, do not have a qualified neurology teacher. Now one problem we have is to bring our basic research up where it can be applied to man.

As a good example here, if we had not started this epilepsy project, if we had not set up a clinical facility that could take care of the neurological, surgical, and electroencephalographic aspects of this project, this project probably would have gone for 20 years untouched.

To give you another example, we have had a second project as promising as this on neuromuscular disorders at the clinical center. The starting point of that project was discovered by Szent Gyorgi, who was a Nobel prize winner, that the basis of the muscle contraction was to be found in a protein called actomyosin, and he discovered a way to make artificial muscle fibers that gives you a way of measuring the various influences on muscles. And when was it discovered? Ten years ago, and nobody had touched it since. So our project in the clinical center is the first time anybody has taken hold of this Nobel prize award work and tried to put it to some clinical use.

Mr. BUSBEY. In your opinion, which is the most important—these training grants, or research?

Dr. BAILEY. Right now, I would say training grants; because our research will reach a saturation point unless we can get some more scientific manpower to take hold of projects.

Mr. BUSBEY. Are there any questions?

HISTORY OF APPROPRIATIONS

Mr. FOGARTY. When was the Institute on Neurology and Blindness enacted into law?

Dr. BAILEY. In 1950, Public Law 692.

Mr. FOGARTY. And when did you get the first appropriation?

Dr. BAILEY. In fiscal year 1952.

Mr. FOGARTY. How much was that?

Dr. BAILEY. In 1952, it was $1,250,000.

Mr. FOGARTY. And how much in 1953?

Dr. BAILEY. In 1953 it was $1,972,300.

Mr. FOGARTY. Now in fiscal 1954 what was the Truman budget?

Dr. BAILEY. $7,670,000.

Mr. FOGARTY. And what was the Eisenhower budget?

Dr. BAILEY. $2,574,000.

Mr. FOGARTY. A $5 million cut. What did this committee allow?

Dr. BAILEY. $4 million.

Mr. FOGARTY. The House committee allowed $4 million even?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. What was the final appropriation?

Dr. BAILEY. $4,500,000.

Mr. FOGARTY. What are you asking for this year?

Dr. BAILEY. $4,763,000.

Mr. FOGARTY. That is $261,250 more than you had available this year; is that right?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. Of that, $243,250 is going to research and that is to provide your share of the operation of the Clinical Center; is that correct?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. And $18,000 is for administration.

Dr. BAILEY. Yes, sir.

CATEGORIES OF NEUROLOGICAL DISEASES

Mr. FOGARTY. This budget is for neurology and blindness activities. In neurology, how many diseases are there?

Dr. BAILEY. About 300.

Mr. FOGARTY. What are the major categories of neurological diseases?

Dr. BAILEY. There are about five.

Mr. FOGARTY. What are they?

Dr. BAILEY. Cerebral palsy, epilepsy, multiple sclerosis, muscular dystrophy, and Parkinson's disease. Another major category is disability from injury, because in the central nervous system once it is injured it does not repair.

You just asked for the neurological diseases; did you not?

BREAKDOWN OF BUDGET BETWEEN NEUROLOGY AND BLINDNESS

Mr. FOGARTY. Yes. Now between neurology and blindness activities, how is this appropriation broken down? How much is for neurology and how much for blindness?

Dr. BAILEY. In research?

Mr. FOGARTY. Yes. Can you give it to me offhand?

Dr. BAILEY. In extramural projects in neurology right now there are 186, and $1,988,056 is for research projects. In blindness there are 67 projects at $484,393.

Mr. FOGARTY. Now can you give me a breakdown showing how much of this $4,763,000 goes for neurology and how much for blindness activities?

Dr. BAILEY. It is not definitely appropriated, as you know, Mr. Fogarty. We have applications which come in. We are running, I should say, on a total of about 22 percent that would be blindness.

Mr. FOGARTY. About how much would that amount to?

Dr. BAILEY. In research, in round figures, about half a million. Then your training is around $200,000. Then we have the other category of general sensory disorders including hearing.

Mr. FOGARTY. Of the $4,700,000-odd can you give me an estimate of how much would be expended for blindness activities and how much for neurology?

Dr. BAILEY. The blindness activity percentage would be about 22 percent.

Mr. HARLOW. It is about $1,050,000.

Mr. FOGARTY. For blindness?

Mr. HARLOW. Yes, sir.

Mr. FOGARTY. That would leave about $3,700,000 for neurology; is that right?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. So you have approximately $700,000 for cerebral palsy, epilepsy, multiple sclerosis, muscular dystrophy, and Parkinson's disease—the five major categories in neurology?

Dr. BAILEY. No; we have more than $700,000.

Mr. FOGARTY. For each, I mean, if you got $3,700,000?

Dr. BAILEY. Yes.

PEOPLE AFFECTED BY NEUROLOGICAL DISEASES AND BLINDNESS

Mr. FOGARTY. And you would have $1 million for blindness.

How many people are affected with neurological diseases and blindness?

Dr. BAILEY. About 20 million.

COMMITTEE OF VOLUNTARY ORGANIZATIONS

Mr. FOGARTY. I think a year ago or 2 years ago we discussed the possibility of someone setting up an overall committee on neurology. We had all of these organizations concerned with cerebral palsy, epilepsy, multiple sclerosis, and muscular dystrophy, and we did not have any overall committee. Has anything been done on that?

Dr. BAILEY. Yes. That was the year before last. In 1952 a National Committee for Research in Neurological Disorders was set up in which there were representatives from each one of these societies interested in these major categories in neurology. This year a similar committee has been set up in blindness. There is now the National Committee for Research in Blinding Eye Diseases and Disability, which was just set up last fall. It is the counterpart of the National Committee for Research in Neurological Disorders and between the Neurology Committee and the Blindness Committee, and there is a liaison in order that there will be no duplication of programs.

Mr. FOGARTY. Tell us how that works. We have a separate national organization on cerebral palsy, multiple sclerosis, and muscular dystrophy?

Dr. BAILEY. Correct.

Mr. FOGARTY. Do we have one on epilepsy?

Dr. BAILEY. Yes.

Mr. FOGARTY. How do they work together with this national committee?

Dr. BAILEY. There is one group you forgot, that is the professional group, the American Academy of Neurology. The chairman of the national committee, as written in their charter, will always be a professional individual in neurology who does not have any particular leaning toward any one of the diseases, but is interested in the entire field. He is the chairman. The rest of the members are representa-

tives selected by their societies to represent them in the national committee.

FUNDS RAISED BY VOLUNTARY ORGANIZATIONS

Mr. FOGARTY. Have you any figures as to how much money they have raised each year since they were organized?

Dr. BAILEY. I can supply that for the record.

(The information is as follows:)

NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS

Funds raised since inception

Year	Multiple Sclerosis Society	United Cerebral Palsy	Muscular Dystrophy Association	National Epilepsy League
1946	$54,706			(1)
1947	84,366			(1)
1948	147,966			(1)
1949	186,237			(1)
1950	181,907	$515,000		(1)
1951	190,321	1,361,000		(1)
1952	248,032	1,526,430	$261,493	(1)
1953 (Sept. 30)	245,576		[2] 602,313	(1)
Total	[3] 1,339,111	3,402,430	863,806	(1)

[1] No information available.
[2] The MDA reports the 1954 campaign will gross about $4 million.
[3] In addition to what was remitted to the national society, approximately $529,906 has been raised by chapters.

Mr. FOGARTY. I think the one on muscular dystrophy is one of the new ones, is it not?

Dr. BAILEY. Yes. I understand they have raised quite a lot of money.

Mr. FOGARTY. They have only been in existence for a couple of years—2 or 3 years?

Dr. BAILEY. Yes.

NATIONAL COMMITTEE

Mr. FOGARTY. This new overall committee is a result of your work, is it not? Did not you sponsor it?

Dr. BAILEY. No; I would rather say it was a spontaneous development that emanated from the American Academy of Neurology, the professional group. One point that Dr. Sebrell mentioned is that the individual societies, many of them, their chief activity is service to the patient; whereas our interest and the interest of the national committee is research.

Mr. FOGARTY. They have a certain percentage, depending on what society it is, of research. The Damon Runyon Fund is all for research activities, is it not?

Dr. BAILEY. The Multiple Sclerosis Society is largely for research.

Mr. FOGARTY. Multiple Sclerosis is largely for research?

Dr. BAILEY. Yes, sir; whereas the National Society for Crippled Children and Adults is mostly for service. Cerebral palsy——

Mr. FOGARTY. What about the National Society for Crippled Children; is that under neurology?

Dr. BAILEY. Yes.

Mr. FOGARTY. Have you had any contact with the Meeting Street School in Providence, R. I., in their work with crippled children?

Dr. BAILEY. I have heard about it, but I have not been there. You see, a large percentage of the crippled children in which they are interested result from neurologic diseases, so actually they use us as their point of reference in research. And, for example, I am research consultant in neurology to the National Society for Crippled Children.

Mr. FOGARTY. You are research consultant?

Dr. BAILEY. Yes.

MULTIPLE SCLEROSIS

Mr. FOGARTY. How much is going to be allocated for research this year in multiple sclerosis?

Dr. BAILEY. I can give you what is allocated right now, and that is 18 projects at $252,404.

Mr. FOGARTY. Do you have any work going on with that disease at the Clinical Center at the present time?

Dr. BAILEY. We do have something, but it is not what we want to have. Actually, I think we should develop the same program in multiple sclerosis that we have now in muscular dystrophy and the other diseases of the lower end of the neuromuscular axis. I think you have to have a broad attack. You see, what has happened in multiple sclerosis research is that you see an experiment here on a certain aspect of the demyelinating process and you get another one there, but you do not have a united attack.

You see, neuromuscular disorders consist of a large group of disorders. For instance, those involving primarily the brain would be cerebral palsy, and Parkinson's disease, and those involving primarily the spinal cord would be multiple sclerosis and one of the best known examples is poliomyelitis. Then, you have the various diseases of the nerves, such as neuritis. In addition to that, you have a disease where the nerve meets the muscle, and the chemical transmission of the nerve impulses to the muscle are interfered with, called myathenia gravis, and finally, diseases where primarily the muscle is involved such as muscular dystrophy.

Now, at the Clinical Center we have started a team attack on neuromuscular disorders, starting at the lower end of the neuromuscular axis. We are using new techniques in radioisotopes and taking muscular biopsis and testing the effects of the exchange across cellular membranes of electrolytes and other body chemicals on the contraction of the muscle, and the discovery of Szent-Györgyi to which I previously referred which is the one we are using as a sort of a point of departure.

We also are studying the pathological effects of various agents on muscle at the same time, so that as one clue develops we will be coming up with the answer to another angle of the problem at about the same time, if you get what I mean.

Instead of having 1 clue come out in 3 years, and then having to wait another 5 years before you get a clue to the other aspect of the problem, all these clues should break at about the same time.

Within a period of 8 months, we have discovered that there is a common denominator in all these diseases of the lower part of the neuromuscular axis and this common denominator is an abnormal distribution of potassium in the muscle.

The only way you can do that now is by tagging these substances with radioisotopes.

In multiple sclerosis about which you asked, Mr. Fogarty——

Mr. FOGARTY. I have been asking about that for about 6 or 7 years, now.

Dr. BAILEY. Yes, sir. We are starting a laboratory in lipid chemistry to study myelin and we have this work going on in Guam, which I think will eventually teach us more about multiple sclerosis.

Mr. FOGARTY. How many men do you have in Guam now, and just what are you doing out there?

What did you call that disease they were studying?

Dr. BAILEY. Amyotrophic sclerosis. That is the disease which Lou Gehrig died with.

Mr. FOGARTY. That disease is related to muscular distrophy or multiple sclerosis?

Dr. BAILEY. It is a combination, clinically, of multiple sclerosis, and poliomyelitis, only in amyotrophic lateral sclerosis there is death within 3 years, but the pathological process in the spinal cord of demyelination is about the same as in multiple sclerosis.

Mr. FOGARTY. How many men do you have carrying on this work in Guam?

Dr. BAILEY. We have two men there.

Mr. FOGARTY. When did they go there?

Dr. BAILEY. They left about a year ago.

Mr. FOGARTY. Just what are they doing?

Dr. BAILEY. Well, they found out that this disease was 50 times more prevalent in Guam than in the United States. Already, they have started their genetic studies, and their nutritional studies, and other studies, to see if there is any infection or other external influences in and around Guam which might account for this great difference between the prevalence of the disease in Guam and the United States.

Mr. FOGARTY. There must be some reason for that. Did you say there was a 50-percent difference between its prevalence in the United States and Guam?

Dr. BAILEY. Fifty times greater. It is the fourth cause of death in Guam.

Mr. FOGARTY. There must be some reason for it, then?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. Suppose I am talking to a group in my State about multiple sclerosis. Just what can I tell them that the Federal Government is doing in this field? I am a layman, and just what can I say?

Dr. BAILEY. Well, you can tell them that the Federal Government has it as a major project on its calendar; that they have begun an epidemiology study in Guam on a related demyelinating disease; they have begun pathological studies at the National Institutes of Health; they have begun a laboratory of lipid chemistry for the study of demyelanation in health and diseases, and eventually the entire energy of this muscular dystrophy project will be turned on multiple sclerosis as soon as these other elements of the program are brought up to a working level.

Mr. FOGARTY. In other words, we have a concrete base to work from now, or to build on; is that right?

Dr. BAILEY. Yes, sir; very concrete, and 3 years ago there was nothing.

Mr. FOGARTY. Is that right?

Dr. BAILEY. Yes, sir; we had nothing.

Mr. FOGARTY. There was nothing being done in the Federal Government, or in any private institution?

Dr. BAILEY. Nothing anywhere.

Mr. FOGARTY. They were the forgotten people, apparently.

Mr. BAILEY. Right. You can say the same thing of muscular dystrophy.

Mr. FOGARTY. And, practically the same thing about cerebral palsy; can you not, and epilepsy?

Dr. BAILEY. Correct, but not quite so bad in epilepsy.

For instance, between last year and this year, with the increased appropriation which we received last year, our projects have doubled in all those categories; that is, the extramural projects, plus what we have at Bethesda.

Mr. FOGARTY. Do you think any of that money was wasted which we gave you last year?

Dr. BAILEY. Not a nickle.

AVAILABLE FIELDS FOR PROGRAM EXPANSION

Mr. FOGARTY. You are asking for $4.7 million this year. Do you think you can spend $10 million if you received it?

Dr. BAILEY. We can spend it; yes.

Mr. FOGARTY. Do you think it would do any good?

Dr. BAILEY. I think we have a very effective program, if I may answer it this way, and I think eventually it must be enlarged.

Mr. FOGARTY. If you are going to make any real progress, it has to be enlarged, has it not; that is, if we are going to follow the history of heart and cancer, and mental health.

That is what bothers me. The Heart Institute was not very old before we were appropriating in the neighborhood of $10 or $12 million, but this Institute for some reason or other has been held down, and has not expanded as the Heart Institute did, or the Cancer Institute, or mental health. That is what is bothering me.

I listened with a great deal of interest to Dr. Traeger last year, who is from New York; is he not?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. Would you say he is a very eminent physician in this particular field?

Dr. BAILEY. Yes, sir; he is.

Mr. FOGARTY. He justified a budget last year of quite a few million dollars more than we appropriated, and I thought he did a pretty good job. I was just wondering if you agreed with his testimony of a year ago?

Dr. BAILEY. Well, I can say this: If the money was available, we could use it wisely.

Mr. FOGARTY. If it was available?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. It could be used wisely if available?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. What are some of the things that are likely to develop if you had more money available?

RESEARCH GRANTS

Dr. BAILEY. Well, we could meet our present demands, for one thing, in research, that we do not meet at the present time.

Mr. FOGARTY. What are some of the more pressing demands that are not being met at the present time in research?

Dr. BAILEY. Well, in research-grant applications—recommended applications—which are above the resources of this Institute.

Mr. FOGARTY. Is that explained in your prepared statement as to the number of grants and applications for grants?

Dr. BAILEY. Not in figures.

Mr. FOGARTY. Well, tell me about it. How many applications do you have pending which you cannot fill because you do not have money enough?

Dr. BAILEY. At the last council meeting it amounted to about $500,000. Since then, and for the June council meetings, applications in the amount of about $1,200,000, have come in; to continue some of the current grants requires $2 million, which makes, let us say, $3 million, and we have $2.7 million, but we would not be able to grant any new applications in the coming year.

Mr. FOGARTY. How much does that amount to in regard to the new applications?

Dr. BAILEY. Well, judging from this year, it would be almost $3 million.

Mr. FOGARTY. $3 million?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. What other phases of this work are you not able to do at the present time?

TRAINING GRANTS

Dr. BAILEY. Well, in training-grant applications we have—and you know that just began last fall with the appropriation last year of $400,000—we have now about $1 million in applications.

Mr. FOGARTY. How many will this $400,000 train?

Dr. BAILEY. $400,000 is now supporting 22 (17 in neurology; 6 in ophthalmology) schools and, to begin with, I imagine it would train about a man at a school.

Mr. FOGARTY. What is the situation in the country at the present time as far as neurologists are concerned? How many qualified neurologists have we?

Dr. BAILEY. Two hundred and seventy-five.

Mr. FOGARTY. And how many are actually needed?

Dr. BAILEY. About 1,500.

Mr. FOGARTY. How much are you going to allocate for training neurologists this coming year?

Dr. BAILEY. The same as the current amount.

Mr. FOGARTY. About $400,000?

Dr. BAILEY. $400,000.

Mr. FOGARTY. That will train about 20 men?

Dr. BAILEY. That would train them, but they would not be finished products in the first year. You see, you have 5 years of training. What we had to do in the beginning was to take the schools that could quickly add people to train. Now, there are 22 of them, and, say, that they add 2, and I think on the average it is between 1 and 2,

that would be 44 people trained at the end of 5 years. I mean completely trained. Of course, it would not be quite that, because they might take some who had training already.

It is hard to calculate just what it would be. Well, let us say there would be 60.

Mr. FOGARTY. At the rate we are now going, how long will it take to get one-half, or 50 percent of those who are needed?

Dr. BAILEY. At this rate?

Mr. FOGARTY. Yes.

Dr. BAILEY. Over 50 years.

Mr. FOGARTY. 50 years?

Dr. BAILEY. That is a rough guess, but I could give it to you for the record, if you want me to work it out.

Mr. FOGARTY. You might as well make it right.

(The matter referred to is as follows:)

	5 years	40 years
Current NINDB training grant in aid to 17 schools (2 residents per school) in 5 years will produce	34	272
Current training stipend program of NINDB will produce 22 trainees in 5 years	22	196
Number of neurologists normally certified per year 25	125	1,025
Estimated total new neurologists	181	1,493
Add present neurologists	275	275
Total	456	1,768
Less attrition deaths, etc	−6	−268
Total	450	1,500

Mr. FOGARTY. In other words, we are not moving very fast in this work?

Dr. BAILEY. We are moving, but not too fast.

Mr. FOGARTY. We are not moving very fast?

Dr. BAILEY. That is right. That is one of the gap areas you see.

Mr. FOGARTY. That is one of the most pressing problems that exists in the country; is it not, in any area of medicine?

Dr. BAILEY. That is right.

DISTRIBUTION OF NEUROLOGISTS

Mr. FOGARTY. In regard to these 275 neurologists who are qualified now, are they evenly distributed throughout the country?

Dr. BAILEY. Oh, no, sir; they are mostly concentrated in the Northeastern States.

Mr. FOGARTY. I think you testified a year ago that there was one section of the country where there was only 1 for 3 or 4 States; is that right?

Dr. BAILEY. Well, yes; there are.

Mr. FOGARTY. So in some States there were not any; is that right?

Dr. BAILEY. There are 10 States without any; that is correct.

Mr. FOGARTY. Ten States without a single qualified neurologist?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. What do those people do?

Dr. BAILEY. Well, we see some of their patients. It is very disastrous to the patients, sometimes.

PARKINSON'S DISEASE

Mr. FOGARTY. I believe we have covered multiple sclerosis, and muscular dystrophy. What are you doing in the Parkinson's disease field?

Dr. BAILEY. In Parkinson's disease, we have six research projects in the amount of $94,431.

Mr. FOGARTY. Just what is Parkinson's disease?

Dr. BAILEY. Parkinson's disease, or the shaking palsy, as it was originally called, is a disease of the basal ganglia of the brain, which has to do with the control of voluntary movements and posture. So, what you see in the Parkinson's case is a lack of controlled posture, and rigidity. They have mask-like facies, and they very seldom smile due to muscular rigidity of the facial muscles. They blink their eyes very seldom, and they have uncontrollable abnormal movements, the most characteristic of which is an uncontrollable tremor, or a pill-rolling tremor. You have probably seen them.

There are about 1.5 million in the country today.

Mr. FOGARTY. Does that generally hit people in adulthood?

Dr. BAILEY It hits all ages, but it is more common in the older age group, but frequently, or, it has been caused by epidemics of encephalitis, which are followed by the disease.

Mr. FOGARTY. When older people get the disease, is there anything that can be done for them?

Dr. BAILEY. We have certain drugs which can reduce the symptoms, and there are certain surgical procedures which have been used, but without too much success. We do not have the answer to Parkinson's disease—any kind of an answer.

CEREBRAL PALSY

Mr. FOGARTY. In regard to the program on cerebral palsy, what are you doing in that field?

Dr. BAILEY. In cerebral palsy—and, by the way, in the classification of cerebral palsy which I have given I have included Parkinson's disease because it involves a disorder of movement, and cerebral vascular disease. We have 50 projects in cerebral palsy in the amount of $451,098.

Mr. FOGARTY. What are you doing at the clinical center, in regard to that condition?

Dr. BAILEY. We are not doing anything. However, there is a very important study that eventually we might get into, and it is needed, and you have to have it before you can do much with cerebral palsy as a problem, since cerebral palsy is caused by a variety of causes.

Mr. FOGARTY. You know some of the causes, do you not?

Dr. BAILEY. Yes, sir; but they have never been classified, as to location of the injury with reference to the symptoms. It would be very easy to do a clinical anatomical study; that is easy for us to do in collaboration with various hospitals throughout the United States, and to establish these definite types so that when we are attacking a type of cerebral palsy we will know what part or the physiology and anatomy or what we are attacking.

Of course, there has been one big advance in one form of cerebral palsy known as kernicterus which accounts for about one-tenth of all cerebral palsy in children, and it looks as though that practically can be eliminated by exchange transfusions. As you know, it is due to an incompatability of the RH factor.

Mr. FOGARTY. Another cause is injury at birth; is it not?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. How many have this condition?

Dr. BAILEY. Among children?

Mr. FOGARTY. Yes.

Dr. BAILEY. About one-half million.

Mr. FOGARTY. What do you mean when you say "among children"? What do you call the child?

Dr. BAILEY. Well, before adulthood, but then, if you get into categories of cerebral vascular diseases, there are about 1½ million of those, and about 1½ million afflicted with Parkinson's disease.

Mr. FOGARTY. I see.

USE OF GLUTAMINE

In regard to the epilepsy program, you gave a very graphic example here this morning of what has been accomplished since you last appeared before our committee.

You said that glutamine is not a drug.

Dr. BAILEY. No; it is a biologic substance that is found in the brain of all mammals.

Mr. FOGARTY. Is this difficult to obtain?

Dr. BAILEY. It is expensive.

Mr. FOGARTY. My question was: Is it difficult to obtain?

Dr. BAILEY. Yes; because it is expensive.

COST

Mr. FOGARTY. How expensive is it?

Dr. BAILEY. Well, that tube which you now hold in your hand is worth about $200.

Mr. FOGARTY. How far would that go in the treatment of one person?

Dr. BAILEY. One day.

Mr. FOGARTY. Just 1 day?

Dr. BAILEY. Yes, sir. However, I should make an introduction here, and that is, the reason it costs that much is because it is not made synthetically. It is not produced on a mass-production basis. Right now a company has a patent on a process for its manufacture, which would reduce that figure by one-fortieth if there were large enough demands to put it on a mass-production basis. They are awaiting our results before doing that.

METHOD OF OBTAINING

Mr. FOGARTY. How do you obtain this substance?

Dr. BAILEY. So far, the small amounts we have used were purchased by us from Nutritional Biochemicals, a firm in Cleveland, Ohio. In order to make the glutamine suitable for intravenous injection, the Merck Co. processed it into sterile ampules. They have done this without charge.

Mr. FOGARTY. How do they obtain it?

Dr. BAILEY. The substance glutamine is extracted from beets.

Mr. FOGARTY. It is extracted from beets?

Dr. BAILEY. Yes, sir. Also, it is found in the brains of animals, but very small amounts of it are found in beets, and they find it is cheaper right now, inasmuch as there is no demand except at our Institute, which is the only place that is using it, that by taking loads of beets, it is cheaper than if they used animals. However, nevertheless, it is $10 a gram, and that tube which you now hold contains 20 grams, which would make it cost $200.

To treat a patient for a year at its present cost, it would come to $100,000.

Mr. FOGARTY. This company which you mentioned now has a formula which would reduce that cost to about one-fortieth.

Dr. BAILEY. Yes, sir; and they think that the cost would go down much further eventually.

Mr. FOGARTY. Do you know what streptomycin cost when it was first discovered?

Dr. BAILEY. It was very expensive, as I remember it. We have been assured that glutamine eventually could be put on the market at a price commensurate with most any biologicals.

Mr. FOGARTY. Commensurate with the cost of penicillin?

Dr. BAILEY. Yes, sir. You see, they have the technique, and the question is to synthesize it. In other words, to synthesize it in a way that it will be more stable than it is now, so you can give it by mouth instead of having to give it intravenously.

RESULTS OF TREATMENT

Mr. FOGARTY. You say they are waiting word from you people before preceeding with mass production?

Dr. BAILEY. They are awaiting results.

Mr. FOGARTY. They are waiting for the results of your study?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. You are not satisfied with the results as yet?

Dr. BAILEY. Very much so.

Mr. FOGARTY. When are you going to give them the word to proceed?

Dr. BAILEY. We cannot scientifically be satisfied unless we have a greater number of patients, and after all, we have only tried it on two patients.

Mr. FOGARTY. What are you going to do now?

COST OF COMPLETING STUDY

Dr. BAILEY. We are continuing with asparagine, which is this plant substance, and hope gradually, to get more glutamine.

Mr. FOGARTY. You mean you are waiting for more glutamine now?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. You are awaiting further production for research purposes?

Dr. BAILEY. Yes, sir; and we hope to get it.

Mr. FOGARTY. What are the possibilities of getting it? What is holding it up? Why can't you obtain more?

Dr. BAILEY. Well, one reason is that it is expensive.

Mr. FOGARTY. Just how important do you think this is?

Dr. BAILEY. I think it is extremely important.

Mr. FOGARTY. That does not answer my question. If this is going to cost some money, we ought to find out how much money it is going to cost, and what we can do about it.

What can I do as a member of this committee about it?

Dr. BAILEY. Well, the cost to get the results for its manufacture, with a yes or no scientific answer, would probably be about $1 million.

Mr. FOGARTY. What would you use that $1 million for? Purchase of this material?

Dr. BAILEY. To purchase it, and use a lot more patients. You see, we have only treated two patients, but we could use a lot more, naturally, but these patients should be run more than 1 day, because with epilepsy you have ups and downs.

Mr. FOGARTY. Could these people with epilepsy be treated with this the same as diabetics are treated with insulin?

Dr. BAILEY. This is the same principle as insulin for diabetics.

Mr. FOGARTY. That is what I mean.

Dr. SEBRELL. Apparently, if this works, the individual will have to keep taking it.

Mr. FOGARTY. Every day?

Dr. SEBRELL. There is not enough data yet, I suppose, to tell.

Dr. BAILEY. Except, on patients which we have been running for a long time, with asparagine, their E. E. G. keeps getting better and better, but how long that will last, I do not know.

Mr. FOGARTY. But they could do the same thing with this as diabetics do with insulin; is that right?

Dr. BAILEY. That is right.

Mr. FOGARTY. We have never found a way to prepare insulin for use without injections?

Dr. BAILEY. So far as I know; no, sir, that is correct. This might have the advantage over insulin, according to what we have been told, which is that it might be made for oral administration.

That is, for administration by mouth.

Mr. FOGARTY. Are any other companies working with this product?

Dr. BAILEY. So far as I know, the only ones interested to date are the Merck Co., which processed the glutamine for us, and the International Mineral & Chemical Co., which holds a process patent on extracting glutamine from beets. Few people know about this yet, because this is the first time our preliminary work has ever been presented.

METHOD OF PROCEDURE WITH STUDY IF FUNDS ARE AVAILABLE

Mr. FOGARTY. If we gave you a couple of million dollars to work with on just this, what would you do with the $2 million? Would you purchase more glutamine and treat more patients?

Dr. BAILEY. Yes, sir, and treat a lot of patients. You see, we can treat a lot of patients on an outpatient basis. They would not have to be admitted to the Clinical Center, and then also, grants could be made to other places to help in the clinical checkup on this. You see, as soon as we work out the basic formula which we think we could have for all of this, within several months, then it is ready for all large clinics all over the country to test.

Mr. FOGARTY. Yes.

Mr. BAILEY. We have to have a certain minimum, though, to say that it is ready for testing. Doses have to be standardized and all that.

Mr. FOGARTY. A few years ago we gave the Public Health Service some money for research in the synthesizing of ACTH, and cortizone, and one of the main reasons for that was to get it manufactured cheaper, so that more people could take advantage of it. I think we did something along that line in regard to streptomycin also, a few years ago.

RESULTS OF TESTS TO DATE

Now, do you think that this holds the same promise that streptomycin did in the treatment of tuberculosis and ACTH and cortisone did for rheumatoid arthritis? Does this hold the same promise in treating epileptics?

Dr. BAILEY. For effectiveness, I think it has more promise.

Mr. FOGARTY. You think it has more promise?

Dr. BAILEY. Yes; for effectiveness, but I may be biased, Mr. Fogarty.

Mr. FOGARTY. What was that?

Dr. BAILEY. I may be biased, but that is my honest opinion.

Mr. FOGARTY. Well, you are giving your opinion from the results that you have seen; is that correct?

Dr. BAILEY. That is correct.

Mr. FOGARTY. And I presume the witnesses who appeared before us on streptomycin and cortisone gave us their opinion then, although I do not think it worked out entirely as well as they expected, or as they told us they thought it would, but I think it was money well worth appropriating by this committee at that time.

I think it has proved itself over the years.

Dr. BAILEY. You can see my point. If I see 10 electroencephalograms return to almost normal, and see some of these people return to normal pursuits of life, I do not yet have the statistical validity, but I am pretty convinced that the thing is good.

Mr. FOGARTY. Have you discussed this with other people—other professional men, and research men, to any great extent?

Dr. BAILEY. As I say, it has never been presented, but it will be presented at the meeting of the American Academy of Neurology in Washington this Friday, and then we can get the reaction of some of our colleagues on this. We could even ask them for their opinions.

Dr. SHANNON. One of the reasons I think Dr. Bailey is a little hesitant about predictions is that we know so little about epilepsy and that there may be many diverse causes, and with his present observation limited to 10 consecutive patients, it may constitute a biased sampling while he does not believe that to be the case. Nonetheless, that causes some hesitancy on his part in the way of making broad claims for this discovery.

Dr. BAILEY. These patients have had all types of epilepsy, and all of them are patients who were never controlled by anything else, but nevertheless, they were only 10 patients.

Mr. FOGARTY. This example that you told us about this morning involving the man 35 years of age, just what is he doing at the present time?

Dr. BAILEY. Well, for the first time in his life he has a job, and he has no epileptic fits, which he had had for his entire life previously.

Mr. FOGARTY. How long has he gone without one?

Dr. BAILEY. Since the operation, which was in September, and he previously had averaged about 5 to 10 seizures every day in his life.

Mr. FOGARTY. Have you seen him recently?

Dr. BAILEY. About 2 weeks ago.

Mr. FOGARTY. And he apparently was normal?

Dr. BAILEY. Yes.

Mr. FOGARTY. He found no fault with the work, or anything like that?

Dr. BAILEY. He does not understand it, as you can well imagine.

Mr. FOGARTY. I do not know one one-hundredth of the technical problems involved in the development and testing of this new product, glutamine, but I am inclined to take your word for it. If something like this looks good and holds the promise that you claim it does, and we have examples of how it has actually worked, I think we ought to do something about it. I do not think a mere $1 million should stand in the way. Maybe some of your superiors might think that, but I do not think it.

It seems we can spend any amount on research to kill people, or to save plants and animals—I think we have just appropriated something like $60 million a couple of weeks ago, for research in the agricultural field. It seems to me that we should not quibble about $1 million or $2 million for something that holds as much promise as you claim this does, for the treatment of epilepsy.

Do you think, if we appropriated $1 million, it would be well spent in this field.

Dr. BAILEY. I am certain it would.

Mr. FOGARTY. And that it would put people back to work who are not able to contribute anything to our economy now?

Dr. BAILEY. Well, I feel myself presently certain that the results would be very valuable, and also we would know the results at a much quicker time.

Mr. FOGARITY. If we do not do any more than we are doing now, what is going to happen to this work?

Dr. BAILEY. Well, I think it will come out eventually, and we will work our cases, and prove our points, and eventually there will be a wide clinical application, and it will get on the market.

However, it is a question of speed, I think, more than anything else.

Mr. FOGARTY. It is a question of time, primarily?

Dr. BAILEY. That is right.

Mr. FOGARTY. If you were given $1 million it might be on the market in 6 weeks, and it might take 6 years the other way before it is on the market. That is just a hypothetical question.

Dr. BAILEY. It could be.

SURGICAL TREATMENT

Mr. FOGARTY. What do the people at the University of Virginia think of the surgical treatment you described? Was not this patient with them before he came to you?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. How do they feel about it?

Dr. BAILEY. They send us about 1 patient a week, and we have 300 applications which we could handle.

Mr. FOGARTY. What do you think they say about it back there?

Dr. BAILEY. They think it is good. There is one thing, though; this surgical patient is not one that has been treated with glutamine. He was fixed up by surgery, but we have to get patients like that that will benefit by surgery in order that we can get living brain tissue out of epileptics. You see, previously, most of the work that was done on the brain was done on dead brains. This is a new departure, and to study the biochemistry, you have to get living brains and the only way you can get it is through an operation, in which removal of tissue will be of benefit to the patient. We have done about 25 of those operations, and we are averaging about 3 a week at the present time. That is done in order to get the tissue to examine.

Dr. SEBRELL. Mr. Fogarty, this is the best illustration I can think of in regard to the wonderful facility that the Clinical Center provides, about which I have told this committee over and over again, and that is to be able to get the biochemists and the basic scientists right in with the clinicians. In the ordinary medical school and other places you do not do that. It is the Clinical Center that provides the means for getting these men together, and at Bethesda we have them working together so that we can take this piece of brain and at the most within 5 seconds have an expert beginning to work on it.

It is the facility at Bethesda that makes this research possible here. It has not been possible before anywhere in many cases. This is not any reflection in any way on the University of Virginia. In fact, they were delighted to send a case up here, where we have the facilities for doing this sort of thing, which they do not have.

Dr. BAILEY. They do not have the surgical facilities, and they do not have the biochemical facilities.

Dr. SEBRELL. Along with this, we have one of the country's great neurosurgeons out here, and I think there are only two other places in the United States where this operation can be done.

Dr. BAILEY. And, they do not have biochemists working on this particular problem.

Mr. FOGARTY. I understand Dr. Bailey trained under one of the great men of the country, Dr. Harvey Cushing of Boston, did he not?

Dr. BAILEY. No, sir; that was a little before my time, sir, but I did have training with one of his associates.

Dr. SEBRELL. Dr. Bailey was brought up in this atmosphere, Mr. Fogarty. His father was a famous neurologist.

Mr. FOGARTY. I believe Dr. Scheele had a statement which he desired to make.

Dr. SCHEELE. I was attempting to cut in to say that no other institution had a Dr. Pearce Bailey.

PREDOCTORATE FELLOWSHIPS

Mr. FOGARTY. Doctor, have you anything to add to this discussion which we have had about the National Science Foundation assuming the responsibility for these predoctorate fellowships? Has your activity lost as a result of that?

Dr. BAILEY. As you know, we were still pretty young when the National Science Foundation started. We only had $50,000 in fellowships.

We heard that the National Science Foundation was going to take over predoctorates. We had an advance warning of it, so we concentrated on postdoctorate fellowships, which at that time was the immediate need, because there was such a lack in the field, and we needed to get teachers fast then.

We are coming around now so that we will need, and it will be a great help to our research, to have preclinical fellows supporting our work, and I agree with Dr. Sebrell and Dr. Van Slyke and Dr. Shannon that I think it is more productive under a medical program. This is a matter of opinion—personal opinion—but I think it is more productive if it is under medically oriented auspices.

RESEARCH FELLOWSHIPS

Mr. FOGARTY. Doctor, in your research fellowships you have $150,000. How many will that take care of?

Dr. BAILEY. We are appointing now about 1 in 5 of approved fellows.

Mr. FOGARTY. You are appointing only 1 in 5?

That means that out of every 5 that have been approved you have to turn down 4 at the present time; is that right.

Dr. BAILEY. That is right.

Mr. FOGARTY. You have $150,000 available this year to take care of 1 out of every 5, and how much would it take to take care of the 5 that are approved?

Dr. BAILEY. Five times that, which would be $750,000.

Mr. FOGARTY. So, you could be spending $600,000 in that field to cover what you are not doing at the present time?

Dr. BAILEY. Yes, sir; however, I think there is a certain advantage in having a backlog.

Mr. FOGARTY. I thought, perhaps, $500,000 would be more realistic than $750,000. Is that right?

Dr. BAILEY. In terms of demand; yes, sir.

TRAINING GRANTS

Mr. FOGARTY. Is the $400,000 in training grants for postdoctorates?

Dr. BAILEY. That is used to develop clinical teachers and researchers in neurological diseases.

Mr. FOGARTY. And that is given to the schools to provide teaching facilities?

Dr. BAILEY. As you know, only 20 percent of our schools have adequate neurological teaching facilities.

Mr. FOGARTY. Only 20 percent?

Dr. BAILEY. Yes, sir.

Mr. FOGARTY. What was the percentage up until recent years? Has it changed recently?

Dr. BAILEY. It is 20 percent, except I think in another year, as a result of the increased appropriation last year, it will increase, of course.

Mr. FOGARTY. How many medical schools are you giving training to?

Dr. BAILEY. Twenty-three; seventeen in neurology; six in ophthalmology.

Mr. FOGARTY. Twenty-three medical schools are receiving them?
Dr. BAILEY. Yes, sir.
Mr. FOGARTY. Are they all receiving the same amount?
Dr. BAILEY. They average $15,000 each.
Mr. FOGARTY. $15,000?
Mr. FOGARTY. What are we giving to heart and cancer, $25,000?
Dr. SHANNON. Yes, sir.

TRAINING STIPENDS

Mr. FOGARTY. What are the training stipends for?
Dr. BAILEY. They are given to young clinicians who wish to pursue an academic career of research in teaching and training, and are also given to clinical neurologists if they are going to pursue a career at a university of teaching or clinical research, and probably both.
Mr. FOGARTY. There has been some discussion this year and other years that sometimes these doctors take advantage of these training stipends and then do not stay in public service.
What do you have to say about that?
Dr. BAILEY. Our criteria are quite rigidly set, and we are too young to see just what the results will be, but of the two who have graduated, each one is now a professor of a department, and one just became professor of neurology of the University of Maryland, which has never had a department of neurology before.
Mr. FOGARTY. Based on the experience which you have had with these people, they do intend to stay in this field?
Dr. BAILEY. Yes, sir; they are very carefully screened.

RESEARCH ON BLINDNESS

Mr. FOGARTY. What are you doing in the field of blindness?
Dr. BAILEY. In the field of blindness, I have given you the research figures, but at the Clinical Center we have just been on a sort of a standby program, because we do not have the facilities to put on a full program.
Mr. FOGARTY. What do you mean when you say "We do not have the facilities"? Do you mean you do not have room enough there; is that what you mean?
Dr. BAILEY. In a way.
Mr. FOGARTY. That is one thing; what else did you have in mind?

SPACE NEEDS OF INSTITUTE

Dr. BAILEY. It is not a question in terms of new buildings, but room in terms of appropriate space.
Mr. FOGARTY. What do you need?
Dr. BAILEY. Well, I think on the space question that Dr. Shannon could probably answer that better than I can.
Mr. FOGARTY. I was just wondering if it was in connection with the new building, or the remodeling of some of the older buildings.
Dr. BAILEY. Remodeling. In order that we could add more space for our program in the Clinical Center, we could remodel a laboratory building and then provide more space for the program. Then, in addition to that, we need additional personnel.

Dr. SHANNON. This came up incidentally in Dr. Sebrell's testimony when we discussed the difficulty we were in from the standpoint of relocation of projects. At the instruction of the committee, we have prepared a memorandum for the Public Health Service to transmit to the Department through channels, detailing the order of magnitude of need and outlining the program areas. I think you will get that today.

Actually when we planned our moves in building the Bethesda Clinical Center, there was no Neurology Institute, so we had to revamp a good deal of the external space, and in order to make the most efficient use of the Clinical Center space, we propose to take some of the functions of the Neurological Institute planned for the Clinical Center building and put them in this building T–10 that we discussed at the last hearing.

Mr. FOGARTY. When this clinical facility was planned, we did not have the Neurology and Blindness Institute, did we?

Dr. SEBRELL. When we started off with original plans for the Clinical Center there were no beds in it for neurology. We did not have a Neurology Institute or the plans for one at that time and it has been necessary to recast our plans to get the Neurology Institute in.

Mr. FOGARTY. You did not have an institute for arthritis and metabolic diseases either, did you?

Dr. SEBRELL. We had a planned program for them.

Dr. BAILEY. But in neurology, there was no space left.

Mr. FOGARTY. How much space have you given to neurology in the Clinical Center?

Dr. SHANNON. They have two wings which constitute 19 modules each for the clinical activity as such and they have to share with the Institute of Mental Health on basic science to the extent of three sites. That would be roughly 100 modules.

Mr. FOGARTY. That does not mean anything to me. How can I compare what has been allowed the Neurology Institute with the Cancer, Heart, and Mental Health Institutes?

Dr. SHANNON. Neurology is a very small Institute by comparison. I think a rough comparison would be by the size of the budget. It is fairly proportionate to the dollars in the budget.

Mr. FOGARTY. Suppose we gave the Neurological Institute $10 million instead of $4.7 million; what would happen to their space allowance in the clinical center then?

Dr. SHANNON. We would have some serious decisions to make and the first decision would have to be how much would be spent in the extramural program and how much in the intermural program. This is a problem that would not only involve laboratory space, but would involve bed space; because in a program of that size then the allocation to the Neurological Institute would be inadequate. We would have to go back and recast our allocations and that would be preferable to adding more beds to the proposed 350-bed schedule for the coming year.

It points up a problem we were going to propose in the 1956 budget for consideration. We have certain programs that appear to have an opportunity to go ahead very rapidly; whereas the clinical needs of other programs appear to be developing more slowly. The way our budget is constructed, there is a question of flexibility in the allocation

of beds from one institute to another that poses rather serious difficulties. And in 1956 if we have the approval of the Public Health Service and the Department, we are going to propose that there be a reserve of the beds which will be at Dr. Sebrell's disposal to push those programs that are going fast and take away from those programs that are going slower, and in that way get more efficient use. But this flexibility in the long run will be essential when we are at full capacity; because, if that was not done, then our past judgments of some 2, 3, or 4 years prior will be confining our parent activities to too great an extent.

So that on the hypothetical question you pose, we would expand the neurology space; we would have more research space allocated, laboratory space. We would propose readjustments of the allocations; we would propose giving them space outside of the clinical center to absorb such additional activities as they felt could be contained within their new budget.

BLINDNESS

Mr. FOGARTY. Tell me something about the problem of blindness. Just what are you doing on blindness?

Dr. BAILEY. Right now we are working, really actually working on one disorder, uveitis, which is an infectious disease, and we are doing that as a joint project with the Institute on Microbiology. We have, as you know, only two ophthalmologists.

Mr. FOGARTY. Is that all you have?

Dr. BAILEY. Yes.

Mr. FOGARTY. I thought we were really doing something in connection with blindness; but, if you only have two ophthalmologists, you are not doing very much.

Dr. BAILEY. We need more now.

Mr. FOGARTY. That is all the money you have available, enough for two?

Dr. BAILEY. Plus the supporting staff. And ophthalmology is another thing in which the consultation demands are very high from other institutes. That is all of the clinical ophthalmology we planned at this stage in developing our program. It is now such a specialty that nearly everybody always asks for eye consultation. With every doctor, I think the eye becomes involved. Of course that takes a lot of their time, so that the research activities there have confronted us with the problem that either we must soon build a little bit, or drop any idea of having a research program.

Mr. FOGARTY. In your overall plans, Dr. Shannon, is something going to be done about this problem? If funds are made available to remodel those older buildings, can this problem be taken care of in your opinion?

Dr. SHANNON. Yes, sir.

Dr. BAILEY. But that won't take care of the personnel.

Mr. FOGARTY. No; but the space can be taken care of.

Dr. SEBRELL. This is a problem of the shortage of ophthalmologists in the country. There is a shortage of people available, and we have trouble in finding qualified ophthalmologists to do research work.

Mr. FOGARTY. Is there more of a shortage of them than there is of qualified neurologists?

Dr. BAILEY. There is not any shortage of qualified ophthalmologists; the shortage we have is ophthalmologists interested in research. There is a difference. And you cannot get qualified opthalmologists out at Bethesda unless you can give him a pretty good facility, and it is the supporting personnel plus facilities that is lacking so far in the development of our program.

Mr. FOGARTY. You cannot get them; is that it?

Dr. BAILEY. You could if you had facilities, plus supporting personnel.

Mr. FOGARTY. Oh, they can be gotten?

Dr. BAILEY. Not many.

Mr. FOGARTY. But you can get some. What do we need to make this a worthwhile program? I have been under the impression that we were really doing something in the field of research on blindness, but apparently we are not.

Dr. BAILEY. No, sir. You need additional personnel.

Dr. SHANNON. Dr. Bailey was faced with a serious decision last year in that he had to decide to do 1 of 2 things, take his resources and spread them thinly over neurology in the categorical responsibilities, or take such resources as he had and concentrate on certain major very important problems and give token coverage to the other areas. His first decision was to select generally the five major neurologic diseases as the ones for emphasis, and as he said, in order to stay on the surface with sustained consultation and the like, he has two ophthalmologists but little research program in that area.

EXTENT OF PROBLEM

Mr. FOGARTY. How many blind people are there in the country?

Dr. BAILEY. A quarter of a million totally blind and then, of course, there are others that are——

Mr. FOGARTY. How many are afflicted—you said 20 million in neurology.

Dr. BAILEY. Neurology and blindness. That includes partially blind, too, where the figure is much higher.

I think we have a breakdown in the prepared statement.

Mr. FOGARTY. So with the amount of money you have, you are not concentrating many dollars on any particular phase of neurology, are you?

Dr. BAILEY. No.

Mr. FOGARTY. It seems to me that people of the country really think we are doing something on research in blindness and actually we are not. I am just beginning to find it out myself. I thought we were doing more than that. I think we either ought to do something worthwhile about it or we ought to get out of the field. I am not in favor of pretending that we are doing something when we are not.

FINANCIAL REQUIREMENT FOR A RESEARCH PROGRAM

If you get the space what do you need to do some real work in research for blindness?

Dr. BAILEY. About a half million.

Mr. FOGARTY. About a half million dollars?

Dr. BAILEY. Yes.

Mr. FOGARTY. What would you use it for?

Dr. BAILEY. All in personnel.

Mr. FOGARTY. All in personnel?

Dr. BAILEY. Well, personnel and equipment.

Dr. SHANNON. We talked about possibility of increasing Dr. Bailey's appropriation for the Neurological Institute. When Dr. Bailey talks about $500,000 he is talking about the money he would have to spend. Were NIH to allocate another unit of 26 beds, I do not have the figures at hand, but that will cost on the order of $300,000 to run the 26 beds for a year. That would leave Dr. Bailey out of his half million $200,000 to put through the program.

Dr. BAILEY. The half million, in other words, does not include reimbursements for beds.

Dr. SEBRELL. You just can't operate, then.

Mr. FOGARTY. I want to find out how much you need to get going on a real research program. I don't know how far you can go but what will it cost to do something, worthwhile including the beds and everything else? If it will take $500,000 for personnel and equipment how much will it take for your overhead, beds, and everything else?

Dr. BAILEY. Around $800,000.

Mr. FOGARTY. Total?

Dr. SEBRELL. Yes.

Mr. FOGARTY. Provided you use that $500,000 as a base it would take about $800,000. Is that right?

Dr. BAILEY. That is right.

GLAUCOMA

Mr. FOGARTY. What about the problem of glaucoma? Has anything been done in that field?

Dr. BAILEY. Well, one of our grantees is using a drug which has been used in cardiovascular disease. As you know, glaucoma is due to increased tension on the optic nerve, that is within the eyeball, finally destroying the optic nerve and creating blindness. In the case of acute glaucoma that comes on fast, this investigator has been using this drug and it reduces the tension so it keeps the patient from going blind before going to operation. Now they are trying it on a wide scale on patients with chronic glaucoma, to see at least if it controls the excess tension on the optic nerve over a long period of time without the drug itself causing any side effects. The original work was done by Dr. Friedenwald at Johns Hopkins. He asked us if we would do the followup on the chronic cases, which we could not do. However, as I understand it now, it is being taken over by some university.

Mr. FOGARTY. That is one of the leading causes of blindness, is it not, glaucoma?

Dr. BAILEY. Twenty percent.

RETROLENTAL FIBROPLASIA

Mr. FOGARTY. Weren't you doing some work in the field of blindness in infants?

Dr. BAILEY. Retrolental fibroplasia, which is the most common cause of blindness among children. About 2,000 of the premature

babies born a year develop retrolental fibroplasia, which is a scar formation which eventually results in detachment of the retina and blindness. This occurs in premature children.

The disease never was described before 1943. All of a sudden it becomes the most common cause of blindness among children, so obviously something has happened between 1943, I mean something exists after 1943, which didn't exist before. We therefore decided to organize, with our extramural program, a collaborative effort, because one of our grantees has demonstrated that excess oxygen will produce a lesion in the eyes of animals which is identical to that of retrolental fibroplasia in humans.

Therefore it looked as though the excess oxygen that they give in incubators to premature babies might cause retrolental fibroplasia, and from different hospitals we obtained some evidence that it may. Therefore we got nine collaborative projects together——

Mr. FOGARTY. Who is "we"?

Dr. BAILEY. The Institute.

With the help of the National Society for the Prevention of Blindness, the Research Foundation for the Blind and leading ophthalmologists, we got all of these people together who developed a project to discover the effects of oxygen on premature children in 18 hospitals to get a quick yes or no answer to the problem; some of them using oxygen and some not, in a way which could be done without endangering vision of the patients.

That investigation is going on now. We do not have the results as yet.

Mr. FOGARTY. Are they hopeful, do you think?

Dr. BAILEY. Let us put it this way: There is nothing so far which appears to contradict the original assumption, but then we don't know the whole story.

NATIONAL COMMITTEE FOR THE BLIND

Mr. FOGARTY. Tell us about the National Committee for the Blind that you mentioned previously.

Dr. BAILEY. It is a National Committee for Research in Blinding Eye Diseases and Disability and it consists of the various professional organizations in ophthalmology and the various voluntary agencies such as the American Foundation for the Blind and National Society for the Prevention of Blindness, National Society to Combat Blindness. There is a whole list of them in my prepared testimony. Would you like me to read it?

Mr. FOGARTY. No. There are several organizations for the blind, though, aren't there?

Dr. BAILEY. About 50 of them. This national committee has most of the big ones in it.

Mr. FOGARTY. So you would say, then, that this national committee now represents the blind of the country?

Dr. BAILEY. That is right in matters of research, the same way the other national committee represents neurological disorders and they have a liaison officer between the two in order that there will be no conflict or overlapping in programs.

Mr. FOGARTY. That is a step in the right direction, then?

Dr. BAILEY. Yes.

CONSTRUCTION OF RESEARCH FACILITIES

Mr. FOGARTY. Dr. Traeger a year ago said he recommended a certain amount of money for construction for research facilities. Do you agree with him on that recommendation, Dr. Bailey?

Dr. BAILEY. There is a need.

Mr. FOGARTY. A need for research facilities in the country?

Dr. BAILEY. Yes.

Mr. FOGARTY. Is there any possibility of that need being met by the private institutions?

Dr. BAILEY. I wouldn't know for sure, Mr. Fogarty.

Mr. FOGARTY. What did the survey, that was made at the request of Senator Thye, indicate so far as neurology was concerned?

Dr. VAN SLYKE. I don't have the figures with me.

Dr. BAILEY. I have the figures—$32,694,569.

Mr. FOGARTY. That is the need as of today for construction of research facilities. Is that right?

Dr. BAILEY. That is what was indicated in the survey.

Dr. VAN SLYKE. That is expressed by those who were contacted. We didn't go to them all.

Mr. FOGARTY. This is the best information you have as of today?

Dr. VAN SLYKE. Yes, limited to those who already applied.

Mr. FOGARTY. It could be more?

Dr. VAN SLYKE. Yes.

Mr. FOGARTY. It couldn't be less but it could be twice that amount, couldn't it?

Dr. VAN SLYKE. I don't know what the figure would be.

Mr. FOGARTY. Neither do I, but it could be twice that amount?

Dr. VAN SLYKE. Approximately, yes.

Mr. FOGARTY. I think that is all I have, Mr. Chairman.

Mr. BUSBEY. Mr. Fernandez?

Mr. FERNANDEZ. I don't think I could improve on the searching examination which has been going on for 4 hours now.

GLUTAMINE

Mr. BUSBEY. Dr. Bailey, how did the Merck Co. get into the manufacture of glutamine?

Dr. BAILEY. The Merck Co. is not itself making glutamine. Like other companies in the field, they are aware of the possible implications of glutamine in biochemistry. Without charge they processed glutamine which our biochemists had purchased in order to make it suitable for their preliminary tests.

Mr. BUSBEY. If this works out as you seem to expect it to, would any one company likely have a monopoly on the product?

Dr. BAILEY. I shouldn't think so, no.

Mr. BUSBEY. Other companies would be able to manufacture and market it?

Dr. BAILEY. Dr. Shannon can speak more on this.

Dr. SHANNON. This is a natural product and as such not patentable. What is patentable would be the method of preparation and there may be a variety of means to prepare it. There may be a variety of ways for its extraction from plant or animal material. There will be patents on the pharmaceutical formula, actual composition of the

material as it is given. But this would be freely available to any manufacturer provided he was not excluded by process patents.

Dr. BAILEY. As I said, one method already has been patented.

Dr. SEBRELL. Chemically this is a simple compound. This is not like cortisone which was a complex thing and a difficult thing. It has been known for many, many years.

Dr. SHANNON. Merck was interested in this because they have been heavy factors in the manufacture of amino acids, of which this is one, and vitamins. Therefore, this is what you might call something very close to the normal pattern of developmental work.

HOW ADDITIONAL FUNDS WOULD BE SPENT

Mr. BUSBEY. Doctor, you mentioned the fact that you could make use of $10 million this next fiscal year?

Dr. BAILEY. Yes, sir.

Mr. BUSBEY. I will not take up the time of the committee now, but could you supply for the record, please, a detailed analysis of just how that would be allocated and how it would be used if the Congress should appropriate it?

Dr. BAILEY. Yes, sir.

(The information requested is as follows:)

National Institute of Neurological Diseases and Blindness

Projects	1955 present budget	Recommended
Grants:		
Research	$2,700,000	$5,000,000
Fellowships	150,000	250,000
Training	400,000	1,650,000
Traineeships	104,000	250,000
Subtotal	3,354,000	7,150,000
Direct operations:		
Research:		
Blindness		650,000
Cerebral palsy		250,000
Multiple sclerosis		300,000
Lipid chemistry		50,000
Present program	1,283,000	[1] 1,350,000
Total direct research	1,283,000	2,600,000
Other direct operations:		
Review and approval	48,000	100,000
Administration	78,000	150,000
Subtotal	126,000	250,000
Total	4,763,000	10,000,000

[1] This represents an expansion (over the current 1954 level) of the epilepsy (glutamine) project which was reported earlier in the testimony.

Mr. BUSBEY. Any further questions?

Mr. FOGARTY. Is there anything else that you think which should be brought to our attention which is not in the justifications or the testimony? Is there something new which has been developed that is not before the committee? It is a leading question, but it is only by asking questions that we found out about the work being done in blindness and the need for research fellowships, and the need for more work on glutamine. Is there anything else that you can think of which should be brought to our attention before you leave?

Dr. BAILEY. Regarding new discoveries, they are more or less summarized in my prepared testimony, and Mr. Busbey has asked me to submit an enlargement of that. After this meeting there may be something new added on that which nobody told me about, such as this glutamine.

This glutamine, when this testimony was prepared, was not advanced as it is today. We were entirely on the speculative side then, but that was 2 months ago.

Mr. FOGARTY. But the information you gave us this morning was as of today?

Dr. BAILEY. That is up to date, yes.

Dr. SEBRELL. It is not even in the scientific literature.

Dr. BAILEY. The first report will come out Friday in Washington and it probably will be published within about 3 months.

Mr. BUSBEY. If there are no further questions, we will adjourn until tomorrow morning at 9:30.

WEDNESDAY, APRIL 28, 1954.

GORGAS MEMORIAL LABORATORY

WITNESSES

DR. VICTOR H. HAAS, DIRECTOR, NATIONAL MICROBIOLOGICAL INSTITUTE
DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. JAMES A. SHANNON, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH
DR. LEONARD A. SCHEELE, SURGEON GENERAL

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate (obligations incurred)			$131,000
Comparative transfer from "Contributions to international organizations, State"	$117,600	$143,000	
Total obligations	117,600	143,000	131,000

Obligations by activities

Gorgas Memorial Laboratory:	
1953	$117,600
1954	143,000
1955	131,000

Obligations by objects

11 Grants, subsidies, and contributions:	
1953	$117,600
1954	143,000
1955	131,000

Analysis of expenditures

Obligations incurred during the year (total expenditures out of current authorizations):	
1955	$131,000

Mr. BUSBEY. I understand, Dr. Haas, that you are going to justify the Gorgas Memorial Laboratory appropriation request?

Dr. HAAS. I would like to, sir.

Mr. BUSBEY. We will insert your prepared statement in the record at this point.

(The statement of Dr. Haas is as follows:)

Mr. Chairman and members of the committee, the Gorgas Memorial Laboratory, research agency of the Gorgas Memorial Institute of Tropical and Preventive Medicine, was established in Panama in 1929. Both the Institute and the Laboratory were named for General Gorgas in honor of his many contributions to the control of diseases common to tropical areas. A building was donated by the Republic of Panama to serve as a permanent home for this agency. The Laboratory was established in Panama so that the benefits of its research might be applied primarily to the prevention of tropical diseases in the population of the Republic of Panama, the Panama Canal personnel, and the military forces stationed in that area.

Since 1929, the United States Government has made an annual appropriation to finance the Laboratory's research activities. Because these activities had been greatly expanded during World War II and because a number of projects of special interest to the Army had not been completed, Congress amended the original act in 1949. The authorized amount which could be appropriated annually was increased from the original $50,000 to a figure not to exceed $150,000.

The program of the Gorgas Memorial Laboratory has been developed primarily around the disease problems of the region in which it is located, but scientific contributions made by the staff have had application in many parts of the world. An example of a current project which is of considerable importance to the continental United States is the research now being conducted on jungle yellow fever. This disease was absent from Central America for many decades, but an ominous situation came to our attention in 1949 when it was learned, largely through the research of staff members of the Institute that yellow fever was creeping northward through the jungles of Central America toward Mexico. This progression continues, and at present the disease is being reported in both Costa Rica and Nicaragua. The direction of spread indicates that there is a distinct possibility of invasion of Mexico. This country contains species of mosquitoes known to be capable of carrying the disease, and similar mosquitos are prevalent throughout the southern portion of the United States. During the past century yellow fever repeatedly devastated the Mexican gulf coast ports as well as our own, and the present threat is one which requires careful attention in the interests of the United States.

Investigations by the staff of the Gorgas Laboratory have indicated that monkeys and probably other animals in the jungle serve as hosts for the virus causing yellow fever. Mosquitoes acquiring infection from these animals pass the disease on to humans. Finally, human-to-human transmission occurs as a result of mosquito activity. It is important that this situation be kept under close surveillance and that all new developments be investigated in order that their significance can be evaluated in time to protect the cities of Central America and to forestall accidental importation of the disease into the United States.

Malaria, which was one of the most serious problems in construction of the Panama Canal, is a disease of worldwide importance, and present investigations in this field by the Laboratory staff have implications that go beyond the areas of study in Central America. It has been shown that since 1952 the spraying of houses with DDT is no longer as effective as formerly in bringing about reduction of Anopheles mosquitoes. Since this type of spraying is now being relied upon in many regions of the world to control malaria, any indication that anopheline mosquitoes are capable of developing resistance will be important to malaria-control authorities everywhere. Thus far, the areas under observation in Central America have not shown increases in malaria rates in spite of the diminished effectiveness of mosquito control, but close observation is necessary in order to follow any trends which develop.

In many parts of the world insects commonly called sandflies transmit a disease known as leishmaniasis, which sometimes occurs sporadically and sometimes in the form of widespread epidemics. This disease is prevalent in Central and South America, and the staff of the Laboratory have shown that spraying with DDT can bring about sufficient reduction in the sandflies to diminish the prevalence of the human disease which they spread. The observations made by the Laboratory staff in Peru have been applied in Italy, Greece, and elsewhere where leishmaniasis is a public health problem.

The Gorgas Memorial Laboratory is small and its staff is composed of only a few scientists and helpers. It is known all over the world because of the excellence

of its work and because it is one of the few laboratories which is able to apply modern scientific skills to the problems of tropical health.

HISTORY OF THE LABORATORY

Mr. BUSBEY. This is a new appropriation for this committee to consider. It is my understanding that in the past this appropriation has been a part of the State Department's appropriation, "Contributions to International Organizations."

Dr. HAAS. Yes, sir; that is my understanding.

Mr. BUSBEY. Tell us just briefly the history of the Gorgas Memorial Laboratory.

Dr. HAAS. Mr. Chairman, this laboratory goes back to about 1929. It was established in Panama as a tribute to General Gorgas, and it had the mission of conducting research in tropical diseases which were prevalent in that part of the world, which are important to us because of our responsibilities related to the Panama Canal.

In the time since its establishment it has made very worthwhile contributions in some of the diseases which are important in the Canal Zone area—yellow fever, malaria, leishmaniasis, and some of the insects which are responsible for the dissemination of those diseases.

I would like to furnish the committee with two documents if I may. One is a statement from the Department of Defense as to their interest in this laboratory, and the other is a resolution from the American Academy of Tropical Medicine memorializing the laboratory and its retiring director.

Mr. BUSBEY. Without objection they will be included in the record at this point.

(The documents requested are as follows:)

ASSISTANT SECRETARY OF DEFENSE,
Washington 25, D. C., January 21, 1954.

LEONARD A. SCHEELE, M. D.,
Surgeon General, United States Public Health Service,
Department of Health, Education, and Welfare,
Washington 25, D. C.

DEAR DR. SCHEELE: It has been brought to my attention that the Public Health Service has the responsibility for budgeting for the Gorgas Memorial Laboratory located in Panama City, Panama. As indicated by Colonel Lawford, a member of my staff, in his conversation with Dr. Price of your office, the Department of Defense has no budgetary or administrative interest in this Laboratory. However, it does have an interest in it as a potential field investigation and research resource.

This Laboratory is an institution of long standing which has made many technical and scientific contributions in tropical medicine. These have aided in developing military preventive medicine practice and the control of disease in tropical environments. During World War II research conducted on malaria and the control of the insect vectors of malaria was of great importance. The staff of the Laboratory also aided materially in training in virus diseases such as yellow fever. These studies have provided substantial scientific knowledge as to the effectiveness of suppressive treatment of malaria and the role of residual spraying. Through these measures it was demonstrated that malaria could be essentially eliminated in village populations in highly malarious areas. Members of the staff of the Laboratory, because of their unique experience in a tropical environment have been borrowed to carry on research under Armed Forces auspices in other areas of the world. One member of the staff is now on loan as field director of the Army's hemorrhagic fever research unit in Korea.

It is the view of this office that, considering the experience, facilities, and special knowledge of the staff of this Laboratory, the Gorgas Memorial Laboratory has many potentialities in future research and field investigations of importance to

the armed services. Therefore it is hoped that a satisfactory arrangement can be made for continued support of the Laboratory.

Sincerely yours,

FRANK B. BERRY
(For Melvin A. Casberg, M. D.).

THE AMERICAN ACADEMY OF TROPICAL MEDICINE,
UNIVERSITY OF PUERTO RICO, SCHOOL OF MEDICINE,
San Juan 22, Puerto Rico, January 18, 1954.

The SURGEON GENERAL,
Federal Security Agency, Public Health Service,
Washington, D. C.

DEAR SIR: At its recent annual meeting the American Academy of Tropical Medicine adopted the enclosed resolution and instructed me to forward it for your careful consideration.

This statement represents the considered judgment of our membership.

Sincerely yours,

E. HAROLD HINMAN, M. D., *Secretary.*

Whereas the experience of the 20th century has shown that good public health in any country contributes enormously to the growth of agriculture, industry, and overseas trade and to political and social progress;

Whereas the events of the past 50 years have repeatedly demonstrated the deleterious effects upon the United States of underdevelopment and of political and social instability in other parts of the world;

Whereas the national security of the United States depends to an increasing extent upon basic materials imported from underdeveloped and often disease-ridden tropical countries;

Whereas the vastly increased volume and speed of intercommunication between the United States and the Tropics have greatly augmented the potential danger which tropical disease presents to our country;

Whereas throughout the world today our country has political and defense commitments which make it necessary for the United States to deploy its Armed Forces to many regions, and, therefore, to maintain a practical interest in reducing the incidence of communicable disease in many overseas areas;

Whereas the World Health Organization over a period of 6 years has conclusively demonstrated that it is a unique and effective international agency welcomed throughout the free world for its help in stimulating, coordinating, and assisting the development of public health and the control of communicable diseases;

Whereas there is no doubt that the United States is materially and politically deriving great benefit from the success of the World Health Organization in developing public health in many countries with which we trade, in accelerating the control of such tropical diseases as malaria, and in lessening the chance of an invasion of the United States by disease-producing parasites;

Whereas the ceiling of $3 million per year fixed by the Congress as the total amount our country may contribute, does not now permit a logical expansion of WHO's activities required by its increased responsibilities: Therefore, be it

Resolved, That the American Academy of Tropical Medicine and the American Society of Tropical Medicine and Hygiene urge the Congress of the United States to raise the statutory limitation placed upon our financial participation; and further

That the secretaries of these respective organizations be instructed to transmit copies of this resolution to the Congress and to other interested organizations and individuals and to inform the press about and to otherwise publicize this resolution to the fullest extent feasible.

Whereas the Gorgas Memorial Laboratory was established as a living memorial to Gen. William Crawford Gorgas in Panama, the area in which Gorgas carried out his most prolonged and important programs for the control of the two principal scourges of the Tropics, yellow fever and malaria;

Whereas the Gorgas Memorial Laboratory is the only permanently established research institution in tropical and preventive medicine within the new world Tropics;

Whereas this laboratory is ideally situated for expanded studies on the basic biology of diseases in the Tropics, and affords the only permanent research center where American workers in tropical biology and medicine can establish temporary or permanent headquarters for extended work on special problems;

Whereas there is a continued need for practical studies of the residue of as yet unsolved problems in the diseases of the Tropics;

Whereas a paper presented by the staff of the Gorgas Memorial Laboratory at these sessions emphasizes the fact that, in spite of intensive investigations during the past half century, our knowledge of the epidemiology of yellow fever is incomplete;

Whereas there has been an extension of jungle yellow fever from South America through Panama, Costa Rica, and Nicaragua, with anticipated further invasion toward the United States through Honduras, Guatemala, and Mexico, where potential vectors have been reported close to the border with the United States of America;

Whereas this Institute has demonstrated its importance as a research center in the American Tropics;

Whereas, after a distinguished career of a quarter of a century as Director of this Laboratory, Dr. Herbert C. Clark is presently retiring: Therefore be it

Resolved, That the American Society of Tropical Medicine and Hygiene, and the American Academy of Tropical Medicine hereby acknowledge the significant contribution made by this Laboratory under the direction of Dr. Herbert C. Clark; be it further

Resolved, That the two societies strongly urge the Secretary of the Department of Health, Education, and Welfare, and the Congress of the United States to increase the annual budget of the Gorgas Memorial Institute so that it may meet the requirements of its enlarged responsibilities; be it further

Resolved, That the secretaries of these respective societies be instructed to transmit copies of this resolution to the Congress, to the Secretary of Health, Education, and Welfare, and to other interested organizations and individuals, and to inform the press, and to otherwise publish this resolution to the fullest extent feasible.

Mr. BUSBEY. What is the early history of the maintenance of this laboratory in Panama? Was it done entirely by the United States Government?

Dr. HAAS. Not entirely, although the bulk of the support has come from congressional appropriations. There have been other sources of money. Some have been in the form of contributions from other governments or from some of the commercial concerns which had investments in that part of the world.

TOTAL BUDGET OF LABORATORY

Mr. BUSBEY. What is the overall cost of operating that laboratory for a year?

Dr. HAAS. The request for this year is $131,000. That takes care of almost the total cost.

Mr. BUSBEY. You say most of the total cost?

Dr. HAAS. Yes, sir.

Mr. BUSBEY. What is the total cost? That was my original question.

Dr. HAAS. The present program, and the present staff, are supported by this amount of money. If there are additional programs undertaken, as there are from time to time, they can be supported by small temporary grants. I don't know of any such support at this moment although there have been some in the past.

BENEFICIARIES OF LABORATORY'S WORK

Mr. BUSBEY. Do the countries of Central and South America benefit from the work of this laboratory?

Dr. HAAS. They do, sir, in two ways: (1) Because the information developed by this laboratory is important to them in the public health

programs and is used by them in that way; and (2) because the presence of a scientific staff in that area gives them the opportunity of associating with this sort of group and this sort of work and it thereby stimulates their own interest in developing their resources.

Mr. BUSBEY. Percentagewise, about how much does the United States benefit in comparison to the Central and South American countries?

Dr. HAAS. I don't know if I can give you the answer in a figure.

Mr. BUSBEY. You have some rough idea. I wouldn't hold you to it specifically.

Dr. HAAS. I think that the benefit to the United States is a substantial one because although these diseases are not of themselves just now important in the continental United States, yet they are of potential importance to us because of our commitments now and then in areas of the world where they are prevalent.

A disease such as yellow fever, which was supposed to be absent from Central America for many years, and which now has been shown by this group to be spreading northward through Central America, to or into Mexico, such a disease is of considerable importance to the United States, at least from the standpoint of surveillance, since it has in the past created serious problems in our own country.

It has been imported again and again, and we are also concerned lest some spread of the disease might possibly subject us to that danger.

Mr. BUSBEY. Will you give us an idea how much these Central and South American countries benefit in comparison to the United States, speaking percentagewise again now?

Dr. HAAS. I think perhaps the Central American countries have a more immediate benefit whereas we have a long-view benefit, and since the work is done on diseases in those countries, and the work is done actually there, perhaps one might say they share equally with us.

Mr. BUSBEY. You mean to say we get as much benefit out of the work of that laboratory as all of the Central American countries together?

Dr. HAAS. If one takes the long view——

Mr. BUSBEY. I am not talking about the long view but the work of the laboratory as it exists presently.

Dr. HAAS. We have to make these statements in terms of something. I would say in terms, then, of the total contribution to scientific knowledge, yes, we get as much benefit as they, perhaps more since perhaps we are able to use it——

Mr. BUSBEY. I am not talking about total scientific knowledge. I am talking about direct benefits and direct application of the work of this laboratory to the countries of Central and South America in comparison to the United States. I don't think that should be such a difficult thing to make an estimate on.

You have no way of measuring it down to the last decimal point. I appreciate that.

Dr. HAAS. The people at the laboratory do not apply control measures. That is not their mission. Their mission is research and investigation into problems and the acquisition of new knowledge.

Mr. BUSBEY. I am talking about benefits and not who makes the application.

Dr. HAAS. Let me put it this way, then—I still have not answered your question and I don't know that I can, but let us go back to yellow fever again.

Mr. BUSBEY. That is only one item. Here is a laboratory which in comparison to our whole budget doesn't amount to very much but there is a certain point in question which interests me very much, especially in view of the fact that the House Government Operations Committee issued a report last week showing a long list of different international organizations to which we were making practically the entire contributions. This is part of a pattern.

I will tell you very frankly that I am thoroughly convinced that the benefits of this laboratory accrue in a very small percentage to the United States compared to Central and South American countries. I am very frank with you, and am trying to give you an opportunity to correct that impression if I am wrong.

Dr. SHANNON. May I comment on that?

Mr. BUSBEY. As you know, we don't care who supplies the answers.

Dr. SHANNON. I would like to suggest that one might look at it from quite a different point of view.

In the total study of some of the diseases that are of importance to the United States, it becomes essential to conduct a portion of those studies in field stations. I think this Gorgas Laboratory would be considered a rather essential field station.

The basis of that comment stems from the historical development of the laboratory over the last 10 or 15 years when it was rare that the Public Health Service did not find it sufficiently important in their total scheme of research work to have people stationed there for periods of 1, 2, or 3 years.

One can do certain things there, where certain insects are more common there than in parts of our own country that, were the facility not available, there would be a positive gap in our research program.

I speak in terms of percentage benefit now. The direct benefit to Central and South America is much greater than it is to the United States.

However, on the other hand, there would be an absolute deficiency in many programs in this country were this facility not available.

Dr. SEBRELL. I could add another point, too, Mr. Chairman, to what Doctor Shannon has said.

As everyone well knows, the Panama Canal could not have been built except that we controlled yellow fever. We have to maintain the canal. It is essential to our defense. Given a military situation, we would have a very direct interest in the health of the people around the Panama Canal. We need to know——

Mr. BUSBEY. I do not dispute that. I have been down there on several occasions and looked the situation over personally. I agree with you 100 percent on that.

REASON FOR TRANSFER FROM STATE DEPARTMENT

What is the reason for transferring this appropriation over to the Public Health Service now, when it has been supported by the State Department previously?

Dr. HAAS. I believe, sir, that that was initiated by the Senate Appropriations Subcommittee which formerly dealt with this appropriation.

From reading the testimony at that time I get the impression that their thinking was this: That here is a laboratory which does research of a public health nature. The Public Health Service has the technical competence to interpret and speak for this type of research, whereas that competence is not a normal component of the State Department, and therefore it would be logical that the Public Health Service would be the agency to speak for this organization and that the subcommittee which was accustomed to dealing with our appropriations would be the logical one to deal with this one.

Mr. BUSBEY. It took them all these years to find that out?

Dr. SHANNON. There is another factor. I do not know the extent to which this obtains. As I understand it, the original law which set up this laboratory set it up in such a way that it could be included in those funds which the State Department used for collaborating activities with other governmental agencies.

As the history of this laboratory has evolved, and particularly because of the extensive use of it by our own Army and Navy, the interest of Central and South American Governments has dropped off to the point now where we are the sole contributor.

It therefore no longer could be included under the budgetary items under which it was carried previously by the State Department.

CONTRIBUTION OF CENTRAL AMERICAN COUNTRIES

Mr. BUSBEY. What has been the annual contribution of Central and South American countries up until now, and what countries contributed?

Dr. SHANNON. I cannot give you that now.

Dr. HAAS. I believe I can get it for the record. I don't have it now.

Mr. BUSBEY. That will be all right.

Dr. SHANNON. Land and building were contributed by the Panama Government.

Dr. HAAS. That is right.

Dr. SHANNON. They were the last ones to continue their contribution. During the past year I think they contributed and it was at the level of ten to twenty thousand dollars.

Mr. BUSBEY. Have any of these Central and South American countries who benefit from this laboratory contributed to the maintenance of the work there?

Dr. SHANNON. Yes, sir, but it never was a major part of the total budget.

Mr. BUSBEY. I would like the record to show what they have done.

Dr. SHANNON. We will be glad to furnish that.

(The information requested is as follows:)

Contributions received by the Gorgas Memorial Institute from other countries

Contributions received:

May 1929 from Ecuador	$760.00
August 1931 from Venezuela	1,150.26

The above amounts represent contributions for 1 year on a prerated basis under a quota schedule set up on the basis of population. These were the only contributions received in response to the invitation to contribute annually.

The Repbulic of Panama has deeded land (one city block) and a building which is used by the laboratory. This land and building are deeded to the Gorgas Memorial Institute for so long as they are used for research purposes. This arrangement, if transposed into dollars, would be a sizable annual contribution.

In addition to the above, there have been numerous other contributions by the South American countries wherein various services, supplies, and materials have been furnished to the Institute's supervisory staff while on duty in their respective countries.

RELATIONSHIP BETWEEN GORGAS MEMORIAL AND PUBLIC HEALTH SERVICE

Mr. BUSBEY. What is the cooperative relationship between the Gorgas Memorial Laboratory and the United States Public Health Service?

Dr. HAAS. For a long time, Mr. Chairman, we have had guest workers. Let me restate that.

Over a period of years we have had the opportunity to have one or more people working in that Laboratory as guests. That hasn't been continuous, but we do have a scientist at this time who is working there, and there was 1 scientist who spent 12 or so years as a guest worker there, 1 of our own National Institutes of Health scientists, so that we have that direct connection with the Laboratory.

Then one of our scientists, who is at Bethesda, serves as a member of the board of directors which reviews the total scientific program of the Laboratory. He has been doing that for a number of years.

Mr. BUSBEY. What does the Public Health Service, outside of the National Institutes of Health, do in cooperation with this Laboratory?

Dr. HAAS. Well, in cooperation with the Laboratory our current activity is the work of this scientist who is now there—that is, investigating the nature of virus diseases in that part of the world with the hope of identifying some of the viruses which are believes to be responsible for the febrile illnesses which people get when they go to the canal area, which to this day remain unidentified.

Mr. BUSBEY. Are these so-called guest scientists that you have had working in the Laboratory for a number of years sometimes nationals of other countries?

Dr. HAAS. There are no nationals of other countries who are there as guests at this time. There are nationals of the Republic of Panama who are members of the permanent staff at this time.

The guests from the National Institutes of Health have been American nationals. The one who is there at this time is an American national.

REQUESTS FOR CONTRIBUTIONS

Mr. BUSBEY. Have any of the Central and South American countries who benefit from this Laboratory been asked to contribute anything toward its maintenance?

Dr. HAAS. To my knowledge there has been no request that they contribute, but—excuse me, I am wrong on that. There has been a mechanism for inviting them to contribute. I think that was part of the original law, and I believe it required that this invitation be issued formally each year, but there is now before the Congress a proposal that this invitation no longer be issued formally at regular intervals.

Mr. BUSBEY. None of the Central or South American countries are taking advantge of this opportunity which is given them through this invitation?

Dr. HAAS. I think that it is true that none of them is contributing directly in cash at this time.

Mr. BUSBEY. Dr. Scheele, while you were out of the room, I was exploring the relationship between the Gorgas Memorial Laboratory at Panama and the United States Public Health Service. What is the relationship between the two agencies?

Dr. SCHEELE. Mr. Chairman, this activity grew up as an independent activity, as you know, and it was placed in the State Department largely because of the relationship and interest of other Latin American countries in this, and the fact the laboratory itself was to be in Panama.

In looking over the continued listing of this item in the State Department's appropriation for international agencies, it was felt that this was inconsistent, this particular item was not consistent, with being related to appropriations for our contribution to the United Nations, World Health Organization, and the many international agencies to which we make contributions.

It was felt that because it was a health operation it would more appropriately be placed in the Department of Health, Education, and Welfare.

WASHINGTON OFFICE

Actually the Gorgas Laboratory is a federally chartered institution to which the Federal Government makes a contribution. The institution itself is run by a board which meets here in Washington from time to time in the actual headquarters which are here in Washington.

Mr. BUSBEY. Why do they need a Washington office?

Dr. SCHEELE. There is a great deal of interest in the early work which Gorgas and various others of our pioneers, Walter Reed and others, have done in yellow fever and several of the diseases which once were scourges in this country but which fortunately we do not now have.

Mr. BUSBEY. I am very familiar with the early history of that. I have read a great many books on it. I do not believe, incidentally, that many people know that the husband of the chief of our passport division, Mrs. Shipley, was very closely associated with General Gorgas and Gen. Robert E. Wood and others of that caliber down there in the early days of the Panama Canal.

Dr. SCHEELE. Some of the older people in military medical research and tropical disease control, notably in this case Colonel Siler, a retired Army officer, serves as the Washington office and he serves as the Washington office without pay, so there is no overhead in this operation. However, it is a contact in the United States for carrying on some of the business relationships which occur here.

We are in process of sending a field team to the Gorgas Laboratory and to attempt to do a critical analysis which we will have ready for the next year of the operation of this laboratory, to see whether we wish to recommend that this be dropped as a continuing item of Federal support.

It was felt, however, we do not have enough information at this time to take the long-range decision and we therefore just had this item transferred from State to us to carry on during this interim period while the whole relationship is being studied.

Mr. BUSBEY. What is the relationship between the Memorial and the World Health Organizations?

Dr. SCHEELE. No direct relationship. World Health Organization is interested in the research results which come out of this laboratory, and I might say we do have a very substantial interest in the research developments of this laboratory in our Army, Navy and Air Force, whose members are still required to serve in countries where many of the diseases which this laboratory is studying are in existence.

In addition to that, we have interest in this laboratory because of our conduct of health activities in foreign countries through the Foreign Operations Administration.

PERSONNEL ENGAGED IN TROPICAL DISEASE RESEARCH

Mr. BUSBEY. What personnel have you other than in the Gorgas Laboratory dealing with these tropical diseases?

Dr. SCHEELE. I do not have that but Dr. Haas does have it.

Dr. HAAS. We have a laboratory in tropical diseases. That is part of the Microbiological Institute. I don't know whether I have here at hand the total number of personnel there or not. If I have it I will give it to you now, or I can supply it.

Mr. BUSBEY. Do you have personnel in any of the Central and South American countries?

Dr. HAAS. We have 2 scientists in Brazil, yes, and 1 now at Gorgas.

Dr. SCHEELE. There are certain problems which exist in that area which can be studied there, which can be studied in other parts of the world, but this is a convenient place to study them. One is jungle yellow fever.

Mr. BUSBEY. Does the United States Public Health Service have any physical properties or laboratories in Panama, Central America, or South America?

Dr. HAAS. No, sir; just scientists who are guest workers at other laboratories.

Mr. BUSBEY. You have no physical properties or laboratories?

Dr. HAAS. Only laboratory equipment.

Dr. SCHEELE. We have no property or actual laboratory plant.

REASON FOR REDUCTION IN BUDGET

Mr. BUSBEY. The request for 1955 is $131,000, or $12,000 less than the 1954 budget. What change in the operations of the laboratory does this decrease reflect?

Dr. HAAS. Well, that was made voluntarily by the director, Dr. Clark, in conformity with his understanding of the need for total economy.

Since he has some flexibility in the program he uses part-time employees for special projects and he can make that up by varying his total employment load in relation to the part of the year that these people work.

Mr. BUSBEY. What percentage of this $131,000 goes for salaries and expenses and what part goes for maintenance?

Dr. HAAS. I will be glad to supply that, Mr. Chairman. I do not have the figure with me.

(The information requested is as follows:)

Breakdown of the budgeted amount of $131,000 between personal services and other objects

	Percent
Personal services	74. 6
Other	25. 4
Total	100

Mr. BUSBEY. What was the total amount that the Bureau of the Budget was asked for?

Dr. HAAS. $131,000, I think, sir.

Mr. BUSBEY. The Bureau of the Budget allowed the entire amount?

Dr. HAAS. That is my understanding. I didn't get into this at that time but that is my understanding from reading the documents in the case.

Mr. BUSBEY. I think that is all I have.

Mr. Fogarty, any questions?

Mr. FOGARTY. No, sir.

Mr. BUSBEY. Thank you, Dr. Haas.

Dr. HAAS. Thank you, sir.

WEDNESDAY, APRIL 28, 1954.

ENGINEERING, SANITATION, AND INDUSTRIAL HYGIENE

WITNESSES

MARK D. HOLLIS, DEPUTY CHIEF, BUREAU OF STATE SERVICES
VERNON G. MacKENZIE, OFFICER IN CHARGE, SANITARY ENGINEERING CENTER
STEPHEN ACKERMAN, FINANCIAL MANAGEMENT OFFICER, BUREAU OF STATE SERVICES
DR. LEONARD A. SCHEELE, SURGEON GENERAL
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
JAMES F. KELLY, BUDGET OFFICER

SALARIES AND EXPENSES

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$3,700,000	$3,162,500	$3,295,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		2,200	
Adjusted appropriation or estimate	3,700,000	3,164,700	3,295,000
Reimbursements from other accounts	118,395	100,000	
Total available for obligation	3,818,395	3,264,700	3,295,000
Unobligated balance, estimated savings	−19,835		
Obligations incurred	3,798,560	3,264,700	3,295,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
1. Industrial hygiene	$638,596	$550,000	$532,500
2. Environmental research activities	442,799	549,700	697,500
3. Water-supply and water-pollution control	1,294,080	903,500	903,500
4. Radiological health services	354,993	275,000	275,000
5. General sanitation activities	856,867	799,000	799,000
6. Administration	92,830	87,500	87,500
Total direct obligations	3,680,165	3,164,700	3,295,000
Obligations Payable Out of Reimbursements From Other Accounts			
1. Industrial hygiene	12,800	10,850	----------
2. Environmental research activities	42,861	20,000	----------
3. Water-supply and water-pollution control	16,520	10,000	----------
4. Radiological health services	25,445	7,150	----------
5. General sanitation activities	20,769	52,000	----------
Total obligations payable out of reimbursements from other accounts	118,395	100,000	----------
Obligations incurred	3,798,560	3,264,700	3,295,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	575	474	487
Full-time equivalent of all other positions	15	14	8
Average number of all employees	553	473	477
Average salaries and grades:			
General schedule grades:			
Average salary	$4,795	$4,866	$4,822
Average grade	GS–6.9	GS–6.9	GS–6.9
Crafts, protective, and custodial grades:			
Average salary	$3,232	$3,232	$3,232
Average grade	CPC–4.7	CPC–4.7	CPC–4.7
Personal service obligations:			
Permanent positions	$2,998,435	$2,620,660	$2,651,235
Other positions	75,965	78,475	49,400
Regular pay in excess of 52-week base	6,691	5,690	5,690
Payment above basic rates	1,207	1,800	1,800
Total personal service obligations	3,082,298	2,706,625	2,708,125
Direct Obligations			
01 Personal services	3,001,897	2,638,425	2,708,125
02 Travel	209,650	182,875	189,075
03 Transportation of things	46,763	32,650	33,400
04 Communication services	25,150	21,300	26,150
05 Rents and utility services	24,882	34,000	35,600
06 Printing and reproduction	103,645	86,350	85,550
07 Other contractual services	85,862	53,000	55,600
08 Supplies and materials	98,322	69,940	83,440
09 Equipment	78,391	38,150	72,250
13 Refunds, awards, and indemnities	12	----------	----------
15 Taxes and assessments	5,591	5,010	5,810
Total direct obligations	3,680,165	3,164,700	3,295,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	80,401	68,200	----------
02 Travel	30,372	20,850	----------
03 Transportation of things	32	1,300	----------
04 Communication services	400	200	----------
06 Printing and reproduction	70	700	----------
07 Other contractual services	623	1,250	----------
08 Supplies and materials	3,490	3,100	----------
09 Equipment	2,987	4,100	----------
15 Taxes and assessments	20	300	----------
Total obligations payable out of reimbursements from other accounts	118,395	100,000	----------
Obligations incurred	3,798,560	3,264,700	3,295,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$369,328	$245,654	$200,354
Obligations incurred during the year	3,798,560	3,264,700	3,295,000
	4,167,888	3,510,354	3,495,354
Deduct:			
Adjustment in obligations of prior years	22,714		
Reimbursements	118,395	100,000	
Obligated balance carried to certified claims account	1,096		
Unliquidated obligations, end of year	245,654	200,354	215,354
Total expenditures	3,780,029	3,210,000	3,280,000
Expenditures are distributed as follows:			
Out of current authorizations	3,450,244	2,980,000	3,100,000
Out of prior authorizations	329,785	230,000	180,000

Mr. BUSBEY. The next appropriation item we have for consideration is the request for fiscal 1955 for "Engineering, sanitation, and industrial hygiene." We again have the pleasure of having Mr. Hollis back before our committee, to enlighten us on this activity.

Mr. HOLLIS. Thank you, sir.

Mr. BUSBEY. At this point we will insert your prepared statement in the record.

GENERAL STATEMENT

Mr. Chairman and members of the committee, this appropriation covers the sanitary engineering operations of the Public Health Service and its work in industrial hygiene. Of the total of $3,295,000 requested, $2,762,500 is for sanitary engineering operations and $532,500 is for industrial hygiene. The sanitary engineering operations are carried on under four broad headings: (1) Water pollution control and domestic water supply; (2) radiological public health engineering, including the control of radiation hazards attending the commercial utilization of nuclear energy; (3) general sanitation, including direct interstate operations; and (4) a comprehensive program of research, demonstration, and training in the engineering phases of public health. The industrial hygiene program of the Public Health Service pioneers studies of the causes and correction of occupational diseases.

The basic public health protective measures provided through sanitation are furnished by the State and local health departments of the country. Only a small portion of this phase of the Nation's health program is provided by the Federal Government. Though small, this portion is a strategic one in that it includes research which provides the new methods to meet new problems; standards which enable consistent application with avoidance of confusion; technical leadership and stimulation to activate State and local effort; and direct Federal operations in areas beyond the jurisdiction or capacity of the States.

For all of these operations the appropriation for fiscal year 1953 was $3,680,165; for the current fiscal year it is $3,164,700. The estimate before the committee, $3,295,000, includes a small increase which will enable the new Environmental Health Center to proceed with research to probe a few of the most urgent environmental problems. Foremost among these is the development of practical approaches to the control of community air pollution.

WATER POLLUTION CONTROL AND DOMESTIC WATER SUPPLY

In the Water Pollution Control Act the Congress has provided for a comprehensive attack on the pollution problem and centralized in the Public Health Service responsibility for cooperation with States and industry; preparation of action programs to reduce pollution; limited enforcement activity; and research directly concerned with the prevention and abatement of water pollution.

We coordinate our efforts with other Federal agencies insofar as pollution affects, or is an out growth of, their primary responsibilities (Corps of Engineers, navigation; Department of Interior, conservation of fish and acquatic life). Findings of other Federal agencies (such as Geological Survey) are utilized by

and are essential to the successful operation of Federal, State, and local pollution control programs.

Through the National Technical Task Committee on Industrial Wastes, industry is bringing to bear on its waste problems its best technical talent. Problems under attack by industrial groups are those in the food, mineral, chemical, and other manufacturing industries. Direct Federal activities are held to a minimum, and deal with collection and interchange of research information on economical processes for industrial waste treatment.

The cooperative surveys with States and interstate agencies have defined the areas in which interstate pollution is occurring. The line with congressional policy, the Public Health Service is moving ahead, largely through conference, technical assistance, and research, to seek solutions to interstate problems, without resorting to formal enforcement proceedings which culminate in court action. The existence of the Federal act is stimulating States to give more attention to problems of interstate pollution and has also made it possible for them to take a firmer attitude on intrastate problems. Enforcement activities require field data to support formal findings, public hearings, and if necessary, court action. The following table summarizes interstate pollution problems according to basin areas:

Major drainage basin areas and number of interstate problems

Northeast	21
North Atlantic	12
Southeast	15
Upper Mississippi and Great Lakes	19
Missouri	9
Pacific Northwest	6
Ohio-Tennessee	14
Lower Mississippi-western gulf	10
Pacific Southwest	7
Total	113

The preparation of joint Federal-State-industry action programs to reduce pollution has been rescheduled in accordance with appropriations. Stimulation of local construction of pollution abatement works, in line with action programs, is carried out by technical consultation, educational methods, and enforcement. Technical assistance is restricted to serious local problems beyond the resources of those concerned, or to problems having regional or national significance.

The research effort of this program is carried on through the Cincinnati Environmental Health Center. This research work constitutes an essential part of the Federal water supply and water pollution control activity and contributes in a major degree to the future success of the programs of States and industry in this field. With the facts available from such research, waste treatment requirements can be determined more precisely and advantage taken of natural purification in streams to the economic benefit of industry and municipalities and the furtherance of control agency programs. Another aim is to develop more effective and cheaper methods of waste treatment.

With the other five Federal members of the Arkansas-White-Red and the New England-New York Interagency Committees, the comprehensive surveys of water and related land resources for those two areas are continuing, with completion scheduled for July 1955. Their completion will yield comprehensive water pollution control and domestic and municipal water supply programs for these two areas as parts of the comprehensive surveys, and represent the principal contribution of the Public Health Service. Integration of water pollution and water supply programs of the Service with the programs of other Federal agencies will continue for the Missouri and Columbia River Basins and the Pacific Southwest region.

RADIOLOGICAL PUBLIC HEALTH ENGINEERING

The objective of our radiological health activities is to assist the States to prepare for the ultimate health responsibilities created by the rapid development of nuclear applications, particularly power, industrial uses, and detonations of nuclear material. Inherent in all nuclear energy uses are the dangers to the public health of minute quantities of radioactive material.

The development of thermonuclear devices by the major powers creates a potential buildup of carbon 14, a radioactive element which will persist in the environment for thousands of years. Proposals designed to encourage peacetime

uses of atomic energy by private industry will accelerate the production of other fission products on a vast scale in multiple locations.

Safe and economical methods are needed for segregating, treating, and disposing of these low and high level, gaseous and liquid byproduct materials. The control on an economical basis of public health hazards inherent in the disposal of wastes from power reactors may well be a dominant factor in determining the rate of development of this industry. The Public Health Service must assist State and interstate agencies in establishing public health engineering criteria for site selections, construction, and operation of facilities.

The program under this item consists of three main activities: (*a*) Assessment of radiation hazards to the public under various circumstances; (*b*) training and demonstrations designed to increase the competence of State and local agencies in dealing with radiological health problems; (*c*) extending assistance to State and local agencies in the development of suitable control programs and the handling of specific problems.

Laboratory studies of radioactive waste treatment and water decontamination procedures conducted since 1949 in cooperation with the Atomic Energy Commission have provided significant information on the effectiveness of various treatment processes in the removal of specific radioisotopes and mixed fission products from water and wastes. Evaluative studies on the effect of classical water-treatment processes on the removal of radioactive materials from water have been completed. Studies on the adaptation of physical, biological, and chemical methods of the treatment and disposal of radioactive wastes will be continued in cooperation with the Atomic Energy Commission.

The Savannah River Advisory Board has recommended that in 1955 the Service give particular attention to the effects upon the Savannah city water supply, upon industrial water use, upon sludge banks, and upon shell-fish growing areas.

The Public Health Service plans to use its resources in close collaboration with the Atomic Energy Commission and other agencies.

GENERAL SANITATION ACTIVITIES

This item covers a wide range of sanitary engineering activities falling within two broad categories:

1. Public Health Service responsibilities for the regulation and control of sanitation for interstate carriers.

2. Public Health Service responsibilities for assisting State and local health departments on such sanitary engineering problems as interstate milk and shellfish shipment certification, control of milk-and-food-borne disease, home accident prevention, and other public health aspects of housing, and other basic engineering services.

The major part of the funds for this activity is required to discharge the interstate carrier activities referred to above. State and municipal governments appropriate roughly $35 million annually to carry on the activities represented by the second category. The importance of the Federal contribution is illustrated by the fact that more than $1 million was made available by the Kellogg Foundation for State and local home-accident-prevention projects, contingent on Public Health Service technical supervision. Federal expenditures on home-accident prevention amount to only $25,000 annually.

The interstate carrier program is concerned with the sanitation problems associated with the transportation of 2 million passengers daily, particularly as they relate to the interstate spread of disease. Through joint action with the industry and States, supplemented by an active inspection program, significant advances are being made in raising the level of sanitation. During the current year, plan reviews of sanitary features have been made of some $404 million worth of conveyance and facility construction. The program encompasses an inspection program totaling 4,700 field inspections of water, milk and food sources, a significant portion of which has been made by the States for us.

The nationwide shellfish certification program is meeting new problems associated with wider distribution of shellfish across State lines, resulting from new methods of freezing and packing, and the importation of shellfish from foreign countries into the United States. As pointed out in last year's statement on this program, this multi-million-dollar industry is working closely with the Service in carrying out measures to prevent the spread of disease by this easily contaminated food. Current control measures are being revised in light of technological advances being made by the industry.

The cooperative State-industry-Public Health Service program of interstate milk shipment certification is assuming major stature from both a public health

and economic viewpoint. While the bulk of the expense is being borne by the industry and the States, the certification activities of the Service constitute the essential coordinating phase of the program. Nationwide acceptance of the Service's system of evaluating State control programs is the key to the public health control of milk shipped interstate from milk surplus to milk deficiency areas. This operation is of vast economic importance.

The nationwide food sanitation program is being broadened to provide closer cooperation with the National Restaurant Association and the National Sanitation Foundation, as well as with State and local health agencies. The Service, at the request of the baking and poultry processing industries, is cooperating in the development of sanitation programs in these industries for the better protection of the Nation's health.

For the past few years, we have had a small group concentrating on the problem of the rehabilitation of substandard housing through application of local housing codes by health departments. Five years ago only 5 or 6 health departments had such programs. Today there are 100 and the movement is rapidly picking up momentum. A nationwide program of housing rehabilitation would increase the available supply of decent housing by several hundred thousand units annually. The present rate of rehabilitation is a small percentage of the potential. It is estimated that 40 million Americans are living in the 15 million to 16 million dwelling units that have basic health deficiencies. Federal assistance consists of aiding in the development of a sound housing code, including uniform standards for facilities, maintenance, and occupancy; the planning of housing surveys; and the studying, for comparative purposes, of successful administrative, legal, and enforcement techniques.

Engineering resources.—A small but significant portion of this appropriation is devoted to improving the planning and coordination of our efforts in environmental health with those of the many other public and private groups in this field. The development of methods for appraising the results of environmental health programs; for improving utilization of the Nation's limited fund of sanitary engineering manpower; and for adjusting our sanitary engineering practices to economic trends are among the specific areas of concern. Centralized technical reference facilities and such adjuncts as mail and file services are provided also from this appropriation.

RESEARCH

The new environmental health center provides for the first time the facilities required to begin to close the wide gap between the problems being created by modern technology and the knowledge we must have to solve them. Obviously the amount of research required to meet the need goes far beyond the capacity of the Cincinnati laboratory. However, we feel confident that the leads developed at Cincinnati will do much to stimulate the latent research potential in these fields at engineering institutions throughout the country. Investigations which will receive additional emphasis in fiscal year 1955 are as follows:

Acute suffering from community air pollution, both in the United States and abroad, is becoming increasingly common. Evidence is accumulating that respiratory diseases are more prevalent and more severe where the atmosphere is polluted. A year ago in London, during a period of smoky fog, the city suffered 8,000 deaths in excess of the normal. The rise in the death rate exceeded that of the terrible cholera epidemic of 1886.

This year, in order to initiate much needed research on the significance of the community air pollution problem and the best methods of attacking it, two small projects were started at the environmental health center. A device for the collection of organic particulate matter from the air was developed and, in cooperation with local health agencies, installed in 17 cities to obtain information as to the organic content of the air under various conditions of meteorology, topography, and industrial or residential activity. Within the last few weeks, we have received a number of urgent requests from industry for such data. A pilot study was undertaken to determine whether or not fluctuations in weekly mortality rates in a large industrial city are related to air quality as affected by weather conditions.

For fiscal year 1955, it is proposed to (1) further develop and evaluate air sampling and analytical methods, under practical operating conditions, and provide laboratory analytical services to support field studies of community air pollution with respect to inorganic and organic particulates, gases, vapors, and allergenic or other materials of biological origin; (2) provide for studies, at a modest level, of the toxicity of pollutants found in the air; (3) extend the analysis of available mortality and morbidity data in relation to measured levels of air

pollution in selected communities; and (4) insofar as possible, comply with requests for assistance on urgent problems of community air-pollution control.

Important new epidemiological information has been obtained in recent years concerning the role of water in the transmission of virus diseases, such as infectious hepatitis, known to prevail widely in our population. Similar questions are being investigated concerning certain fungus diseases. It is proposed to continue fundamental studies of the occurrence and persistence of viruses and fungi in water, to develop methods for their laboratory identification and enumeration, and to determine the effectiveness of chlorination and other processes in the destruction of viruses.

Food sanitation.—Two acute problems will be given special attention in 1955. The development of simple, rapid methods of determining whether or not food has been contaminated by micro-organisms or by the poisons secreted by the common staphylococci will be pursued. Also, investigations will be conducted on the gulf coast to determine the extent to which shellfish absorb contamination, and their ability to cleanse themselves in unpolluted areas. This is a continuation under warm water conditions of the studies recently completed in colder waters at Woods Hole.

Development and improvement of sanitation control techniques.—Improvements in tax-supported public health services are being attained and money economies effected by applying new or improved tools and methods, such as the membrane filter procedures developed by the environmental health center for the bacterial examination of drinking waters. Potential savings from this procedure are estimated in terms of millions of dollars annually as its application in public health laboratory practice is extended. Similar savings for Government and industry may be realized if current studies of a new germicide for use in the milk and food industry come up to their promise.

Among other investigations to be pursued at the center are (*a*) the development of analytical procedures for chemicals in the environment, (*b*) the development of rapid automatic instrumentation for analysis of chemical and microbiological pollutants, (*c*) the study of practical procedures in the use of selected germicides to insure proper selection and use in specific circumstances, (*d*) the continued development of the application of the membrane filter technique, especially for the identification and estimation of important intestinal pathogens, the salmonellas and shigellas, and for other field uses, and (*e*) the abstraction of domestic and foreign technical literature related to the environmental health field for the benefit of the center's research staff and official health agencies by the publication and limited distribution of public health engineering abstracts.

Maintenance of building and facilities.—Costs of operating and maintaining the center at Cincinnati are estimated at the 1954 level—24 positions and $107,400 total cost. This represents a minimum level in relation to legal requirements, safety, security, cleanliness, and prevention of undue deterioration of facilities.

INDUSTRIAL HYGIENE

The Public Health Service began its program of scientific studies and research designed to help conserve the human resources of the Nation's industry about 40 years ago. In the ensuing four decades, unprecedented technological advances and industrial expansion have brought many new and different threats to the health of the working population. The principles of good occupational health practices developed through these studies are applied by industry, official agencies, and professional groups as a result of suggestion and reason rather than rule and regulation. Studies and research of this type implement a principal objective of this Division: the protection of workers against the hazards of occupational diseases.

The second of our two major objectives is the improvement and maintenance of the health of workers. There are two significant trends in this field of activity. First, increased emphasis is being placed on the work place as a significant factor in the prevention and control of chronic diseases and mental disorders. Second, there is a growing awareness of the importance of privately financed health maintenance services for workers. Employers and State and local agencies are beginning to appreciate the many benefits which can be realized by the improvement of health services for workers. Preventive medicine and emergency medical care on the job, financed by private funds, provide a practical means of improving the health of a large segment of the adult population with fewer tax dollars. Employers, employees, and communities benefit through reduced sickness absenteeism, increased productivity at lower cost, and greater earnings. However, progress on this health front has been discouragingly slow. At present, five-sixths

of the workers of the country do not have even minimal health services available at their places of work.

The occupational health program proposed for fiscal year 1955 consists of field and laboratory research studies of occupational diseases and the development of measures and standards for application by industry, official agencies, and professional groups. Other major activities include consultation services in the fields of occupational medicine, engineering, nursing, toxicology, biochemistry, health physics, and statistics. Special advisory assistance is made available to State and local agencies and other organizations on unusual and complex problems which arise in the administration of occupational health programs and services.

To absorb budget reductions amounting to approximately 18 percent since fiscal year 1953, it has been necessary to discontinue the publication of the technical journal Occupational Health, to discontinue studies of the reporting of occupational diseases and sickness absenteeism, and to sharply curtail technical assistance.

The major research work now under way consists of studies of health hazards associated with the mining and milling of uranium ores and of diatomite; industrial noise and its relationship to hearing acuity; possible carcinogenic properties of shale oil; toxicity and cutaneous effects of various industrial substances; and studies of such physical agents as temperatures, humidity, ionizing radiation, radiant energy, illumination, and ventilation as they affect the worker.

BUDGET REQUEST

Mr. BUSBEY. Mr. Hollis, your request this year is for $3,295,000, which is an increase of $132,500 over the 1954 appropriation.

Mr. HOLLIS. Yes, sir.

Mr. BUSBEY. Is that increase going into environmental research activities?

Mr. HOLLIS. Yes, sir; all of that increase, Mr. Chairman, is for use at our new laboratory facility at Cincinnati.

Mr. BUSBEY. What did you request of the Bureau of the Budget?

Mr. ACKERMAN. $3,502,500.

Mr. BUSBEY. The amount you are here to justify is $207,500 below the amount requested of the Bureau of the Budget?

Mr. HOLLIS. Yes, sir.

Mr. BUSBEY. If your full request had been allowed and the Congress had concurred in that allowance, would this additional $207,500 have been applied to environmental research activities?

Mr. HOLLIS. $100,000 of it would have, Mr. Chairman. The remainder would have gone into the interstate milk shipment program and some small amount into the industrial hygiene operation. But the bulk of it would have gone into the Cincinnati facility.

Mr. BUSBEY. What would have been added to your activities on the interstate milk shipments?

Mr. HOLLIS. At the moment, we are at approximately a $60,000 annual operation. We feel the interstate milk program ultimately should level off at about $100,000 to $110,000; so the increase would have added some 4 or 5 people to that program.

Mr. BUSBEY. How much are you spending on that now?

Mr. HOLLIS. $64,000, involving 10 positions.

USE OF INCREASE REQUESTED

Mr. BUSBEY. Explain to the committee a little more in detail for what this $132,500 increase will be used.

Mr. HOLLIS. That will be used to round out and fill in some of our key scientific staff at the Robert A. Taft Sanitary Engineering Center.

It will be used in large measure to enlarge slightly on our research, in the field of community air pollution, which is an area relatively untouched in terms of sanitary engineering knowledge and intelligence of the problem. It is an area that is increasing in importance from a health standpoint, from an economic standpoint, and certainly from a nuisance and esthetic standpoint.

Mr. BUSBEY. Have you been working on the Los Angeles problem?

Mr. HOLLIS. We have consulted on two occasions for short periods at their request, primarily to be of some assistance in helping them line up their program of operation, especially some of the epidemiological work and some of their technical work in terms of measurements of the particulate matter and the research to develop an understanding of the problem.

As you know, that is a very complex problem in Los Angeles.

Mr. BUSBEY. Have they made any progress in getting to the causes of the situation and correcting it?

Mr. HOLLIS. Yes, sir. In Los Angeles I think they have made quite a bit of progress. As perhaps you know, the city and county, in combination, have appropriated rather sizable sums for study, for research, and for some regulatory measures as fast as they can work out a practical and equitable method of enforcing regulatory measures. And certainly if they have not as yet made too large a dent into some of the potential toxic materials getting into the air from some of the industry, at least they have made real progress in some smoke abatement and some of the measures in the areas which we know how to control.

RADIOLOGICAL PUBLIC HEALTH ENGINEERING

Mr. BUSBEY. You refer, in your statement, to radiological public health engineering. What is the Atomic Energy Commission doing in this field; that is, in the public health aspects of the industrial use of radioactive materials?

Mr. HOLLIS. The Atomic Energy Commission is doing more research in all aspects of radiation and nuclear fission to effect an understanding of fissionable materials than is any other agency. On this particular point, if I may, I would like to give you just a little background as to what we are proposing under these estimates. I think the reality of life is that we are in the atomic age and that no health department or health agency any longer can ingore the fact that radiation is at the moment of real health interest and could, without proper understanding and control, become a significant health problem. Health officials must consider it now along with other health measures.

Our approach here is to bring into the field of radiological health the years of background experience of our group, our understanding of environmental behaviors of the formulas and equations that relate to the behaviors of streams; similar knowledge we are compiling on air, and the sanitation involved in processing and handling of foods. In other words, our field of sanitary engineering deals with the stresses and of the effects of stresses on air, water, food, and shelter. With the new problems of radiation, they are affecting materially, and will affect more and more as the peacetime uses of atomic energy expand, these environmental fundamentals of air, water, food, and shelter. Our first objective, as you may recall when we first presented the problem to this committee 5 years ago, was that we needed to develop

some intelligence in this area; that we should take some of our men who were trained engineers in the field of sanitary engineering and give them some additional knowledge and understanding in the field of radiation, so that we would be prepared to meet proper request from the States and to be of any assistance we could to the AEC on problems in our field. That objective has been reached.

The second objective at the time was to undertake studies relating to the behavior of radioactive materials in the environment. Learn to measure the levels of radiation to understand the dilution, dispersion and absorption factors of radioactive materials in streams, in air, and in soil. Those studies we have carried on in very close cooperation with the AEC, bringing into the picture, as I say, our trained sanitary engineers who have had supplemental training in radiation.

As the policy develops for a broader and more extended peacetime use of fissionable materials, for power and for other uses, with the great potential benefits that will come from that, there will be inevitably byproduct wastes and the effects of the use of radioactive materials on the environment. It is on that phase of the problem that we are now working.

Recently the Atomic Energy Commission requested that we assist them, as their contractor so to speak, with the offsite monitoring of any future continental test. Plans for such work are now being worked out with the AEC.

The policy we have tried to follow as our primary objective is to help develop the knowledge and the intelligence that the State health agencies will need in this field. Ultimately this problem and the regulatory measures associated with the problem is going to fall to State and local communities and interstate agencies. So our objective is to help these groups get ready.

Mr. BUSBEY. It is your opinion, then, that eventually the States and not the United States Public Health Service will have to take over this program?

Mr. HOLLIS. I think the State health groups, including, of course, the State water groups, ultimately will have the regulatory problems associated with normal radiation uses just as they now do for any other industry. I would hope that same pattern would hold and that our part of the problem would be to assist with the research intelligence as rapidly as possible and the techniques for control application.

Mr. BUSBEY. Is it too early to say that progress has been made in that direction?

Mr. HOLLIS. Not at all, sir; because there are five States at the moment which have State level programs within the Health Department and, of course, many cities are doing good work. For example, after the press announcement of some few months back about the nuclear reactor that was proposed for the Duquesne Electric Co. at Pittsburgh, within a few days after that release we were called by the Interstate Commission on the Ohio River. They were quite concerned about what effect that would have on the Wheeling and on other city water supplies. We were able, in cooperation with AEC, to give them information and an understanding of the work that had gone into these plans and the precautionary measures that were being taken. The States on the Ohio, and so forth, are developing intelligence as fast as they can and I believe in all honesty and sincerity that this is one problem that we are on top of, and one we have got to be on top of.

RELATIONSHIP OF FOOD WORK TO FOOD AND DRUG ACTIVITIES

Mr. BUSBEY. On page 8 of your statement under "Food industry you say:

> The nationwide food sanitation program is being broadened to provide closer cooperation with the National Restaurant Association, and the National Sanitation Foundation, as well as with State and local health agencies. The Service, at the request of the baking and poultry processing industries, is cooperating in the development of sanitation programs in these industries for the better protection of the Nation's health.

How does your work in that field relate or overlap with the work of the Food and Drug Administration?

Mr. HOLLIS. First may I say that on all of these committees the Food and Drug Administration has a representative. Being in the same Department and having daily contact with each other, it is helpful that they have a person on our committees and we have one on theirs when considering problems in this field. In general, the Food and Drug Administration is the Federal regulatory authority in the field of pure foods and drugs. Our effort, on the other hand, is in the public health aspects of the problem; assistance to State and local health agencies in developing their regulatory controls relating to the handling and serving of foods. The question is a can of peaches, for example, that is shipped interstate a safe product, or any other food that is processed and shipped interstate is a safe product, is in the food and drug area of operation. Ours is in the potential contamination of foods during the preparation and during their serving and during their storage or refrigeration. That is the primary basic difference. In the prepared statement the thought is perhaps not too clear, because of the few words. I would like to expand, if I may, to this extent. The food industry is a multibillion dollar industry. I think it is listed as about the fourth largest industry we have. And our objective has been over the past 5 years to work toward a self-policing, operating within the industry, to get the industry itself interested in doing its primary sanitation job. In turn, the industry has asked our help in working with them to attain some uniformity in the sanitation practices through the State and local health departments, so that as they develop new equipment and methods and materials they will be acceptable to all of the State and local health groups. We feel under that kind of plan, most of our small resources should be used where they could do the most good, which is in the area of new problems. Incidentally not all of these are new problems; they are really some old problems, but they become more complex with the new processes; for example, rapid methods of pasteurizing milk; use of plastic and synthetic materials in pasteurization equipment and food-dispenser equipment, and the sanitation problems associated with such changes. The States daily ask us about such matters and that is what we want to use the most of our resources on.

WORK IN FIELD OF HOUSING

Mr. BUSBEY. How many people have you working on the problem of the rehabilitation of substandard housing?

Mr. HOLLIS. In the field of housing we have a total of three people.

Mr. BUSBEY. This unit of your work is cooperating with what other agencies in regard to this problem?

Mr. HOLLIS. Of course, the Housing and Home Finance Agency, has the basic authority in slum clearance housing, and we are working very closely with that group. As a matter of fact, one of those three people until quite recently was on liaison assignment to them. We have a fourth person, an engineer, in the housing field, but we have loaned that fourth man to the Housing and Home Finance group—of course they reimburse our Department for his salary—to bring to them our ideas and as a liaison between the two agencies.

There is another agency we are beginning to work very closely with, and that is the Department of Agriculture in an effort to be of some value in rural farm homes because, through the Extension Service, Agriculture is the Federal agency that has the closest contact.

RELATIONSHIP OF AIR POLLUTION WORK IN DIFFERENT PHS DIVISIONS

Mr. BUSBEY. Now on the matter of air-pollution investigations, how is this work different from the air-pollution work done by the communicable disease center and that done under Microbiological Institute grants?

Mr. HOLLIS. Our program is in the field of community air pollution. It is dealing with all of the physical properties and physical containments in the air, particularly the matter of mists and toxic materials that are getting into the air and studying the behavior of these matrials in the air; methods of reducing and controlling the extent of the pollution, and working out practical methods to control.

In the case of the communicable disease center, their work is limited to the problem of pathogenic bacteria in the air. This phase of the problem is at CDC because our epidemic intelligence program is at CDC and we felt that those two operations tied closely together.

In the two programs there are some common denominators. For example, some types of equipment that are used for sampling lend themselves to use either on the physical side of the problem or the bacterial side and, where that is the case, of course there is a very close working relationship between the two groups.

NONFEDERAL EXPENDITURES FOR WATER POLLUTION CONTROL

Mr. BUSBEY. What is the trend in non-Federal expenditures for water pollution control?

Mr. HOLLIS. At the State levels the trend has held about constant. If we could go back to 1948, as I recall the figure, the total budget that we could delineate as State expenditures ran about $2 million. That has built up over the years to about $6 million and has held about constant for the last 2 years. There is a slight increase this year, but that is largely because Pennsylvania has a special appropriation to aid the cities in certain ways in their water-pollution program.

Mr. BUSBEY. Will you be able to furnish a table that would show for the past 5 years the trend in expenditures, Federal, State, and local?

Mr. HOLLIS. I will be glad to. May I ask, Would you want the interstate expenditures, for example, of the five interstate agencies separated?

Mr. BUSBEY. No, not necessarily, as long as it comes under the heading of State expenditures.

Mr. KELLY. Do you want that in total, or broken down by States?

Mr. BUSBEY. No, I do not want it by States; just the total.

(The requested information follows:)

Summary of appropriations for water-pollution control

Appropriation title [1]	Appropriated fiscal year—					
	1949 [2]	1950 [3]	1951 [4]	1952 [5]	1953 [6]	1954 [7]
Salaries and expenses, water-pollution control (Public Health Service, research, comprehensive program development, field investigations)	0	$1,200,000	$1,491,283	$1,350,000	$1,300,000	$903,500
Grants, water-pollution control (to States and interstate agencies)	0	1,000,000	1,000,000	900,000	0	0
Grants for plan preparation, water-pollution control (for planning prior to construction of projects)	0	([8] 200,000)	([8] 750,000)	([8] −750,000)	0	([8] −200,000)
Construction loans (to States, interstate agencies, and municipalities to aid in constructing sewage treatment works)	0	0	0	0	0	0
Administration expenses, water-pollution control (General Services Administration for administering the above 2 appropriation titles)	[10] $75,000	[10] 52,285	0	0	0	0
Total	75,000	2,252,285	2,491,283	2,250,000	1,300,000	903,500

[1] The $4 million authorized in sec. 8 (b) of Public Law 845 for construction of a research facility at Cincinnati has been appropriated and the building is under construction. Since this item is not included in the extension of Public Law 845, it is not shown in the table.

[2] Under Public Law 845, authorization for $26,925,000 for fiscal year 1949 was not appropriated. These authorizations lapsed on June 30, 1949.

[3] Under Public Law 845, authorization for $24,747,715 for fiscal year 1950 was not appropriated. These authorizations lapsed on June 30, 1950.

[4] Under Public Law 845, authorization for $24,508,717 for fiscal year 1951 was not appropriated. These authorizations lapsed on June 30, 1951.

[5] Under Public Law 845, authorization for $24,750,000 for fiscal year 1952 was not appropriated. These authorizations lapsed on June 30, 1952.

[6] Under Public Law 845, authorization for $25,700,000 for fiscal year 1953 was not appropriated. These authorizations lapsed on June 30, 1953.

[7] Under Public Law 845, authorization for $26,096,500 for fiscal year 1954 was not appropriated. These authorizations will have lapsed on June 30, 1954.

[8] Placed in reserve by Budget Bureau and later rescinded by law. These figures not included in the total.

[9] Rescinded.

[10] Appropriated to the General Services Administration prior to transfer of its functions under Public Law 845 to the Federal Security Agency by Reorganization Plan No. 16, 1950. Reorganization Plan No. 1, 1953, created the Department of Health, Education, and Welfare.

State funds expended by State water pollution control agencies, 1949–54 (field survey activities, enforcement, review of construction plans and specifications, training of local sewage treatment works operators, and supervision over operation of local sewage treatment works)

1949	$2,000,000	1952	$4,016,580
1950	2,286,941	1953	5,000,000
1951	2,993,322	1954	6,000,000

Local expenditures for water-pollution control—Contract awards for construction of municipal[1] sewage-treatment plants,[2] 1948–53

Calendar year—	Contract award value	
	Current	1950 [3]
1948	$158,000,000	$175,000,000
1949	180,000,000	194,000,000
1950	203,000,000	203,000,000
1951	177,000,000	168,000,000
1952	137,000,000	123,000,000
1953	190,000,000	162,000,000
Total, 1948–53	1,045,000,000	1,025,000,000

[1] Includes cities, significant institutions, etc.
[2] Includes sewage-treatment plants and interceptor sewers.
[3] Adjusted by Engineering News Record Construction Cost Index.

INDUSTRIAL EXPENDITURES FOR WATER-POLLUTION CONTROL

Mr. BUSBEY. Do you have anything that would show the industrial expenditures in this field?

Mr. HOLLIS. We have some figures, Mr. Busbey, of the industrial expenditures for correction of pollution, that is, for pollution abatement works. We have some general figures but they are not accurate on the industrial expenditures for water-pollution work within industry. Such figures are awfully hard to ferret out, but we do have some general figures on the expenditures by industry for the correction of pollution and the installation of remedial works.

Mr. BUSBEY. If you have any figures you can supply, I think it would be helpful for the record.

Mr. HOLLIS. All right, sir.

(The requested information follows:)

ESTIMATED WATER POLLUTION CONTROL EXPENDITURES BY INDUSTRY

1. It is estimated that $75 million per year is being spent by industry for the construction of industrial waste-treatment facilities or adjustments in plant equipment for the purposes of industrial pollution abatement. This is an estimate based on analysis of industrial expenditures in a small number of selected areas in the country and on expenditures of a few selected major industries, since a complete tabulation of such expenditures is not available.

2. In 1953 industry had under way approximately 400 research projects costing $3 million. These projects were designed primarily to furnish information on methods for treating industrial wastes in an industrial group or for a particular industry, methods for utilization of byproduct wastes and on process changes to reduce wastes volume.

Mr. BUSBEY. At this point in the record we shall insert the table showing the summary of responsibilities and functions of Federal agencies in water-pollution control and the description of methods of coordination with United States Public Health Service. There are lots of questions raised on that. So, it probably would be a good table to put in the record.

(The matter referred to is as follows:)

Summary of responsibilities and functions of Federal agencies in water-pollution control and description of method of coordination with U.S. Public Health Service

Name of Federal agency	Legislative authority for basic responsibilities	Description of basic responsibilities	Activities relating to water-pollution problem as adjunct to basic responsibilities	Coordination effected with U. S. Public Health Service water-pollution control program through—				Notes regarding relationship to Public Health Service water-pollution control program
				Interagency committees (a)	Formal agreements (b)	Development of comprehensive WPC action program (c)	Liaison, informal agreements, conferences, exchange of technical information (d)	
Department of the Army, Corps of Engineers.	Various flood control and rivers and harbors acts.	Control and regulation of streams for flood control, navigation, and related purposes, such as water supply, hydroelectric power and other phases of multipurpose programs.	Stream regulation which affects the availability of dilution water and the design of waste treatment works.	X	X	X	X	The impact of stream regulation and multipurpose development on pollution control is great. It is a relatively minor aspect of the Corps of Engineers' vast construction and maintenance program.
Do	Navigation Act of Mar. 3, 1899, sec. 13.	Prohibits discharge into navigable waters of refuse other than in liquid state which would impede or obstruct navigation.	Issuance of permits, surveys, and enforcement.	----------	----------	----------	X	This is a direct pollution-control activity under Corps of Engineers administration. The Public Health Service has not established a specific action program for this particular area of pollution control. Coordination is effected through headquarters and basin office staffs.
Do	Oil Pollution Control Act of 1924.	Prohibits discharge of oil in United States coastal navigable waters as it affects navigation.	Surveillance and enforcement.	----------	----------	----------	X	Do.

Summary of responsibilities and functions of Federal agencies in water-pollution control and description of method of coordination with U.S. Public Health Service—Continued

Name of Federal agency	Legislative authority for basic responsibilities	Description of basic responsibilities	Activities relating to water-pollution problem as adjunct to basic responsibilities	Coordination effected with U. S. Public Health Service water-pollution control program through—				Notes regarding relationship to Public Health Service water-pollution control program
				Interagency committees (a)	Formal agreements (b)	Development of comprehensive WPC action program (c)	Liaison, informal agreements, conferences, exchange of technical information (d)	
Department of the Interior:								
Bureau of Reclamation.	The Reclamation Act of 1902 and subsequent reclamation acts.	Land reclamation through irrigation with incidental development, such as hydroelectric power, flood control, stream regulation and other phases of multipurpose programs.	Stream regulation which affects the availability of dilution water and the design of waste treatment works.	X	X	X	X	The impact of stream regulation and multipurpose development on pollution control is great. It is a relatively minor aspect of the Bureau of Reclamation's vast construction and maintenance program.
U. S. Geological Survey.	Acts of 1879, 1888, and 1894.	Research in developing and publishing facts about mineral, water and land resources, such as investigations of surface and underground waters in respect to quantity, distribution, chemical quality, sediment content, availability, and utilization.	Measurement of streamflows and determination of kind and amount of desolved minerals, provide data serving PHS pollution control activities.	X	----------	X	X	There is no duplication of water-pollution control activities between the Geological Survey and the Public Health Service. No direct or indirect responsibility is placed on Geological Survey for pollution control. Basic data gathered by the Survey are used by all Federal agencies including Public Health Service. There is no duplication in the collection of these data.

Fish and Wildlife Service, and Bureau of Mines.	Act of 1946 to promote the conservation of wildlife, fish, and game.	To promote effectual planning, development, maintenance, and coordination of wildlife conservation and rehabilitation in the United States.	Make investigations to determine the effects of domestic sewage, mine, petroleum, and industrial wastes, erosion silt, and other polluting substances on wildlife, including determination of standards of water quality for wildlife, study of abatement methods including recovery of by-products and collection and distribution of data.	X	----------	X	X	Constant awareness is needed regarding these activities of the Interior Department to guard against overlapping. Detailed consideration of water quality is a basic essential in protecting and studying fish and aquatic life. No duplication of activity exists between the Fish and Wildlife Service and the Public Health Service. Additional work needs to be undertaken by the Fish and Wildlife Service of pollution in relation to aquatic life.
Bureau of Mines.	Act of 1910 and subsequent acts establishing the Bureau of Mines and defining the duties.	Making a long-term mineral inventory and mineral potentials surveys. Conducts economic and technical studies to evaluate mineral industrial potentialities and water requirements.	Studies the conservation of valuable waste products resulting from mining and mineral processing industry operations.	X	----------	X	X	The present programs of the Bureau of Mines and the Public Health Service do not overlap. There is need for the Bureau to extend its program in acid mine drainage and oil brine control methods.
Department of Agriculture:								
Soil Conservation Service.	Soil Conservation Act of 1935.	Responsible for the development and prosecution of a national program to help bring about physical adjustments in the use and management of land that will conserve soil and water resources and reduce the hazards of floods and siltation.	The control of soil erosion directly helps water pollution control as silt is a very significant stream pollutant.	X	----------	X	X	There is no overlapping of activities between the Soil Conservation Service and Public Health Service. Coordination of activities results in mutual strengthening of programs.
Bureau of Dairy Industry.	Act of 1924	Conducts investigations in the breeding, feeding, nutrition, and management of dairy cattle, and in the physiology of milk secretion and of reproduction with a view to developing more efficient dairy herds.	Research on the recovery of wastes from dairies, cheese plants, and other plants using dairy products, as a means of obtaining greater utilization of the raw materials and of preventing water pollution.	----------	----------	----------	X	No overlapping of Bureau and Public Health Service programs. In recognition of Bureau's activities, Public Health Service has not developed a program in area of Bureau's interests.
Forest Service	Agricultural Appropriation Act of 1906.	Has responsibility for promoting the conservation and best use of the Nation's forest lands.	Carries on research in the utilization of forest products and wastes from pulp plants.	X	----------	X	X	No overlapping of activities. Public Health Service utilizes Forest Service knowledge and experience relating to reduction and utilization of wood products wastes. Forest Service refers problems resulting from wood product wastes to Public Health Service for consideration.

Summary of responsibilities and functions of Federal agencies in water-pollution control and description of method of coordination with U.S. Public Health Service—Continued

Name of Federal agency	Legislative authority for basic responsibilities	Description of basic responsibilities	Activities relating to water-pollution problem as adjunct to basic responsibilities	Coordination effected with U. S. Public Health Service water-pollution control program through—				Notes regarding relationship to Public Health Service water-pollution control program
				Inter-agency committees (a)	Formal agreements (b)	Development of comprehensive WPC action program (c)	Liaison, informal agreements, conferences, exchange of technical information (d)	
Atomic Energy Commission.	Atomic Energy Act of 1946.	Utilization of fissionable materials through research, development and promulgation of technical and scientific information, and broadest possible exploitation, under Government control of production, ownership, and use, to assure the common defense and security, and for other purposes.	The responsibility of assuring that fissionable materials and their byproducts are not injurious to the public safety involves consideration of measures to prevent discharge of harmful wastes into the waterways.	----------	X	----------	X	There is no overlapping of activities between the Atomic Energy Commission and the Public Health Service with respect to water-pollution control. Close working relationships exist in the field of research and in special field investigations jointly established on important problems (Columbia River, Savannah River). Atomic energy establishments together with their research facilities have as their principal end point the production of fissionable material and the development of ways to use it. Whether under Government monopoly, including operation by the Government or by private bodies under contract, or ultimate development by private enterprise, the problems involved from the Public Health Service view are the same as those for any

industrial establishment, namely; the proper disposal of wastes produced from industrial operations. In its relations with other industrial establishments, the Public Health Service does not assume any responsibility for the production or disposition of wastes within the establishment itself. It is concerned with the wastes discharged by that industry and the effects of those wastes on the waterways of the Nation and on water users.

Summary of Water Pollution Control Responsibilities of the Public Health Service

LEGISLATIVE AUTHORITY

Water Pollution Control Act of 1948 (Public Law 845) and Public Health Service Act (Public Law 410).

DESCRIPTION OF BASIC RESPONSIBILITIES

1. Congress held that the primary right and responsibility to control pollution rests with the States. Federal responsibilities include providing support and aid to technical research; technical services to State and interstate agencies and industries; financial aid to State and interstate agencies and municipalities, in the formulation and execution of their stream pollution abatement programs.

2. Specifically, the Water Pollution Control Act states that Public Health Service is to—

(*a*) Prepare or adopt comprehensive pollution-control programs for interstate waters and their tributaries. In their preparation, due regard must be given to all water uses, that is, not only for public water supplies but for the propagation of fish and aquatic life, recreation, agricultural, industrial, and other legitimate purposes as well. These programs are to be developed in full cooperation with other Federal and interstate agencies, States, municipalities, industries, and others concerned.

(*b*) Promote interstate cooperation by encouraging cooperative activities between the States, the enactment of uniform State water-pollution control laws, and compacts for pollution control by the States.

(*c*) At the request of any State or interstate pollution-control agency, conduct investigations, surveys, and research on any specific water-pollution problem, so as to recommend a solution of such problem; and to publish the results of surveys, studies, investigations, and research for public and private bodies and individuals.

(*d*) Exercise enforcement powers on interstate waters when pollution from one State endangers the health or welfare of persons in another State.

(*e*) Participate in the construction of municipal sewage treatment works by making loans at 2 percent to public bodies, with a maximum project loan of $250,000. Projects must be approved by the State water-pollution control agency and the Surgeon General.

(*f*) Participate in the construction of municipal sewage treatment works by financing, through grants, the cost of engineering investigations and plan preparation prior to the construction phase of the project, with a maximum project grant of $20,000. Projects must be approved by the State water-pollution control agency and the Surgeon General.

(*g*) To aid States and interstate agencies through grants for investigations and research on the control of water pollution caused by industrial wastes.

The Water Pollution Control Act authorizes annual appropriations (until June 30, 1956) of $22.5 million, $1 million, and $1 million, respectively, for the purposes set forth in paragraphs (*e*), (*f*), and (*g*), above. Further, the act authorizes up to $2 million annually for activities of the Public Health Service and $500,000 annually for administering the purposes of paragraphs (*e*) and (*f*), above.

3. The Public Health Service Act, Public Law 410, makes the following provisions, among others:

(*a*) Section 301 directs the Surgeon General to conduct in the service, and encourage, cooperate with, and render assistance to other appropriate public authorities, scientific institutions, and scientists in the conduct of, and promote the coordination of, research, investigations, experiments, demonstrations, and studies relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and impairments of man, including water purification, sewage treatment, and pollution of lakes and streams.

(*b*) Section 311 directs the Surgeon General to assist States and their political subdivisions in the prevention and suppression of communicable diseases, to cooperate with and aid State and local authorities in the enforcement of their quarantine and other health regulations, and to advise the several States on matters relating to the preservation and improvement of the public health.

REMARKS

The purpose of the Water Pollution Control Act is to provide for a comprehensive attack on the pollution problem by a single Federal agency. The responsibilities of the Public Health Service are directly related to pollution control. In contrast, activities in the pollution-control field by other agencies exist primarily as an adjunct to their primary purpose.

In large measure, pollution-control activity undertaken for the protection of public health provides protection for other water uses as well. Where pollution control activities must of necessity be undertaken in areas other than public health, such as the effects on fish and wildlife, coordination with the principal agency concerned is carried out in accordance with the procedure shown in this table.

The provisions of the Public Health Service Act, Public Law 410 of the 76th Congress, which codified statutes pertaining to the Public Health Service, have, since 1912, been the authority by which Public Health Service has received annual appropriations for its research and investigation activities in the field of water-pollution control. It was to this long-existing basic authority that Public Law 845 of the 80th Congress was added in 1948.

As an outgrowth of its basic responsibilities, primarily in the field of water-pollution control, the Public Health Service was invited to become a member of the Federal Interagency River Basin Committee. It is responsible, in the Committee's activities, for the pollution control aspects of broad river basin development programs.

TRANSFER OF CERTAIN ACTIVITIES FROM CINCINNATI TO WASHINGTON

Mr. BUSBEY. Mr. Hollis, on page 1 of the Statistical Summary of Water Supply and Treatment Practices, put out by the Public Health Service, it states, and I quote:

During 1939 the Public Health Service, in cooperation with the various state health departments, initiated a program designed to furnish a continuing census of sewage-disposal systems, and water-treatment plants in the United States. These activities were conducted at the Environmental Health Center, Cincinnati, Ohio, until 1950, when they were transferred to the Division of Water Pollution Control, Washington, D. C.

I was wondering why at the very time that you were building larger facilities in Cincinnati you moved these activities to Washington?

Mr. HOLLIS. That is a very good question, Mr. Busbey.

May I preface my answer by saying that they are being moved back to Cincinnati.

The reason we moved them here—and, incidentally, only one man was involved in the transfer—but the reason we moved them to Washington at that time was because we were getting our water pollution control program under way, and a great deal of the basic data that was essential for the comprehensive programs, as required under Public Law 845, the Water Pollution Control Act, were quite similar to these inventory data which we were obtaining annually in cooperation with the States. We felt it would be more effective to combine those two operations, at least during the initial stage, the first 4 years of operation, of the water pollution control program. That was the reason for moving the files, and the one man, to Washington.

Mr. BUSBEY. How many people do you have working on this project, altogether?

Mr. HOLLIS. At the moment there are three people on that project, and the reason for the enlargement is that we have been requested—our Department has been requested by the Office of Defense Mobilization—to assume the responsibility of maintaining inventories of

water-supply potentials and sewers and sewage-treatment potentials for use in case of a defense buildup.

We felt we could absorb this activity with no additional cost, because we were doing almost all of it, anyway. However, we do have at the moment three people involved in the work. It will level off with two people.

Mr. BUSBEY. You stated that it was the Office of Defense Mobilization which asked you to do that?

Mr. HOLLIS. Yes, sir.

Mr. BUSBEY. Did they reimburse you for any expense in regard to that?

Mr. HOLLIS. No, sir; they did not, because at that time the ODM was under instructions to establish within the framework of regular Federal activities the essential work that should go on before their program of materials allocations, and so forth, that were set up for the period of the Korean war.

After an inventory, in and around Government agencies, it seemed that our Department was the logical one to assume that phase of it, since we were doing the bulk of it, anyway, for the States, and we felt we could absorb it with practically no increase in cost.

INDUSTRIAL HYGIENE

Mr. BUSBEY. On page 3 of your justifications, under the heading of "Industrial hygiene," you state in the next to the last paragraph, last sentence,

> Extends to the total health of the workers, mental as well as physical health, on and off the job.

MENTAL HEALTH WORK

What work is being done by the industrial hygiene people in mental health?

Mr. HOLLIS. It is a limited amount of work, Mr. Busbey, which they have worked out with the Mental Health Institute, and it, largely, is in cooperation with the State, and local mental health programs in the industrial areas.

For example, the occupational health program or industrial hygiene, maintains a close working relationship with industry, and can aid in the promotion of mental health programs through their close-working relationships with State and local health groups.

The industrial hygiene program has no scientists or medical officers specifically assigned to a mental health program.

CANCER

Mr. BUSBEY. On the next page under the heading "Research in occupational diseases," you mention that studies now under way and proposed for continuation in fiscal 1955 include the following: Lung and skin cancer, and dermatosis.

Of course, the first thought that comes to my mind is why that should not be done by the Cancer Institute?

Mr. HOLLIS. This is carried out in close collaboration with the Cancer Institute. It is principally a segment of their work in the shale-oil industry, that is one industry where occupational health is doing other industrial hygiene work.

It appears from statistics that there is a significanctly higher potential of skin cancer in this particular industry. So, they were working on that problem while they were in that area, but they are doing it in cooperation with the National Cancer Institute.

LOSS OF HEARING

Mr. BUSBEY. The next item in that paragraph has to do with the relationship of industrial noise to loss of hearing, and that, again, brings up the question of why the Institute of Neurology and Blindness isn't doing this since they are conducting research on the loss of hearing.

What work are you doing in that field, Mr. Hollis?

Mr. HOLLIS. Mr. Chairman, Dr. Seward Miller, who is in charge of this program, was out of town, and did not get back and, frankly, I am not familiar with that particular operation, sir.

Mr. BUSBEY. Will you have him furnish a statement for submission in the record at this point?

Mr. HOLLIS. Yes, sir; thank you, sir.

(The matter referred to is as follows:)

ENGINEERING, SANITATION, AND INDUSTRIAL HYGIENE, PUBLIC HEALTH SERVICE—STATEMENT ON THE STUDY OF THE RELATIONSHIP OF INDUSTRIAL NOISE TO LOSS OF HEARING

This study is being conducted as a part of the occupational health program since it is designed to provide information needed for the solution of a special problem existing only in industry. The information to be obtained will not be applicable to the general population but it will have direct and specific application to workers and their employers.

A brief description of the study may serve to indicate the limited and special nature of investigations in occupational diseases and the differences between such investigations and other health research activities of the Service.

The need for a solution to the long-standing and difficult problem of industrial noise has been intensified in recent years because of the compensation aspects. Recent court decisions have established a pattern under which compensation for hearing loss due to industrial noise is awarded even though there is no immediate loss of time from the job. The absence of data on the relationship of noise to hearing loss makes it very difficult to establish fair standards on which to base compensation.

To obtain the information needed for the establishment of standards, it is essential that the study be conducted at places where the workers are exposed to noise conditions found in industrial operations. In this study, conducted in cooperation with Federal Prison Industries, Incorporated, audiometric data and information on noise conditions are being collected at four Federal penitentiaries. The equipment used, manufacturing methods employed and sound levels encountered are similar to those for comparable operations in private industry. A group of approximately 600 workers in the 4 penitentiaries has been selected for special study. The group was picked from men expected to remain in custody more than 2 years. Each man will have his hearing tested at 3-month intervals.

The findings of investigation of occupational health hazards are frequently of interest and value to other parts of the Service engaged in fundamental medical and clinical research. In the planning and conduct of the investigations of occupational health diseases there is close collaboration with other research activities to insure coordination of effort and full utilization of existing knowledge and resources.

RADIATION

Mr. BUSBEY. Now, we come to "Industrial hygiene studies of physical agents, such as ionizing radiation and radiant energy". A great deal of work in that field is being done by the Atomic Energy Commission?

Mr. HOLLIS. Most of that, Mr. Chairman, as with the atmospheric contaminants, is done within special industries, as a result of the concentration that they have in these industries of these contaminants in regard to practical means of measuring them.

For example, in regard to ionizing radiation, the oil industry, and many of the other industries, are using fissionable materials now to check the structure and strength of materials, and there, of course, the industrial hygienists are working in that plant, working with industry on the safety precautionary protective measures that are used.

NUMBER OF POSITIONS IN TOP GRADES

Mr. BUSBEY. I notice that the total number of positions under this appropriation was 575 last year, and it has dropped to 474 this year. I was wondering why it takes 15 positions in the director grade, which is about $10,000 per year, here in Washington, instead of the 11 you had last year?

Mr. HOLLIS. Our programs in all of these fields, Mr. Chairman, are on the highly technical side, involving highly trained experts.

We are moving more and more to the specialization problems, and with that, comes the requirement that our scientists and engineers be more specialized and better trained, and that is reflected in the position levels.

Mr. BUSBEY. The number of positions in this grade in the field has almost doubled in the last year.

Mr. ACKERMAN. Our figures here show that the number of commissioned officers, $8,000 and above, in 1952, shows virtually no change. In 1952 there were 78, and in 1955 there were 77.

Mr. BUSBEY. Yes; but in the director grade, in the field, the number has gone from 5 in 1953 to 9 in 1954.

Mr. HOLLIS. I do not have before me, Mr. Chairman, the exact programs that those increases are in.

Mr. BUSBEY. That seems to me like a rather large increase in the director grade—from 11 to 15, in the Washington office, and from 5 to 9 in the field, when total personnel decreased.

Mr. ACKERMAN. I think our overall totals were essentially constant, but there has been that shift.

The overall total of $8,000 positions and above—grade 13 and above—remained constant.

Mr. BUSBEY. Well, according to the budget figures, they are not constant.

Mr. ACKERMAN. The budget figures you are referring to are director grade positions; is that right?

Mr. BUSBEY. Yes.

Mr. ACKERMAN. I was referring to $8,000 and above, which includes lower grades.

Mr. HOLLIS. One explanation which I know of is that in water pollution we have had certain positions set up both as civil service classified and as director grade positions, to be used interchangeably, and over the past 2 years there have been some changes from the civil service classification into the commission classification in that grade.

I know of two of these, and I suspect that there are more.

Mr. BUSBEY. Well, you can submit an additional statement for the record when you check it.

Mr. HOLLIS. Thank you, sir.

(The matter referred to is as follows:)

STATEMENT ON DIRECTOR GRADE POSITIONS, ENGINEERING, SANITATION, AND INDUSTRIAL HYGIENE, PUBLIC HEALTH SERVICE, APPROPRIATION TO BE FURNISHED THE HOUSE APPROPRIATIONS SUBCOMMITTEE

The increase of four director grade positions at Washington headquarters are the following:

1. Assistant Chief, Division of Sanitation.
2. Chief, Field Operations Branch, Division of Water Pollution Control.
3. Chief, Reports and Education Branch, Division of Water Pollution Control.
4. Assistant to the Chief, Water Supply, Division of Water Pollution Control.

An analysis of the duties and responsibilities of the first three positions above justified the establishment of a civil-service classification of GS–14 (range $9,600 to $10,600) or a comparable commissioned officer grade of Director (range $9,125 to $10,930). The fourth position was made necessary by the increased activity in the field of community water supply.

The increase of four director grade positions in the field are the following:

1. Engineer-in-charge, Missouri Drainage Basin.
2. Engineer-in-charge, Lower Mississippi and Western Gulf Drainage Basin.
3. Engineer-in-charge, Pacific Northwest Drainage Basin.
4. Assistant regional engineer, region 3, Washington, D. C.

With respect to the first three positions above, these river-basin officers were assigned additional heavy responsibilities in connection with the interagency water-resources program. On the basis of an analysis of the duties and responsibilities of the positions of engineers-in-charge of these basin offices, a civil-service classification was established at the GS–14 level, or a comparable commissioned officer grade of Director. In the case of the assistant regional engineer, region 3, this position was made necessary by the increased interagency sanitation program, including the community sanitation problems incident to the Piketon, Ohio, atomic-energy installation.

COST OF COMPLETING CINCINNATI BUILDING

Mr. BUSBEY. How much is it going to cost you to complete the fourth floor of the building in Cincinnati?

Mr. MACKENZIE. We have figures, Mr. Busbey, on completion of the fourth floor of the new building in Cincinnati. These estimates are based on information that was supplied to us by the Public Building Service of General Services Administration. Completion of the fourth floor in the building, to permit its use as a laboratory facility, is estimated to cost about $230,000.

Mr. BUSBEY. That is made up of what items?

Mr. MACKENZIE. That is principally made up of the items of installing partitions, lighting, ventilating equipment, plumbing, some benches, the accessories that would go with it in the interior of the structure itself.

Now, in addition to this $230,000 it is our opinion that a second elevator should be installed in the building at the same time, when the fourth-floor area is completed.

Mr. BUSBEY. How much additional would that cost?

Mr. MACKENZIE. The current figure that we have on the second elevator would be $40,000. I might remark that the shaft for it is already in place, and the new item would consist of the elevator cage and the operating machine.

PERSONNEL MOVED TO NEW BUILDING

Mr. BUSBEY. On page 714 of the hearings of last year, I asked you, "Who is going to occupy this building?" and you stated:

> It is proposed, Mr. Chairman, to move all of our environmental health operations in Cincinnati into the building.
>
> As we analyze the space situation in the building, there would be on the fourth floor some nine thousand-odd square feet of space, that is in excess of the immediate needs.
>
> In the determination of the use of that space, we are considering the possibility of moving in at least certain elements of the Industrial Hygiene Laboratory which are now located in Cincinnati. Certainly, some of this work would lend itself to the type of space that we will have available.

What elements did you have in mind, and have they been moved?

Mr. HOLLIS. No, sir; they have not all been moved into the building.

We had in mind 1 or 2 alternatives, if part of the Industrial Hygiene Laboratory were to be moved, conceivably we could have done this by moving 1 of the laboratories—the toxicologist laboratory, for example, in there—or we could have moved some of the field personnel to the fourth floor.

In other words, we could have made some adjustments in the total use of the building.

We have attempted, Mr. Chairman, over the past year, to analyze very carefully the use of this new center, and we are faced now with about this picture:

Presuming completion of the fourth floor, we feel we could consolidate in the new building some of our operations now elsewhere in the field, and some that are now in Washington. We would select those directly related to the sanitary engineering operations of the center. Such consolidation would give us a much more effective use of that building.

The rationale behind that analysis is essentially this:

That as we have moved ahead in our rapidly changing technology, these environmental problems become more involved and more complex, requiring, if we are to render real assistance to the States, highly expert and competent scientists and engineers.

Our thought, facing that reality that the scientific engineering environment which we will have there would lend itself ideally to centering in Cincinnati most of our technical expertness on consultations to States.

We could utilize men out of Cincinnati who would keep themselves fully informed and intelligent in all new developments in any particular area. We felt that that could be done, in terms of the overall State consultation program, with no appreciable shift in resources.

It was on that basis that we were hopeful that the committee would agree that such use would be preferable to a split in the industrial hygiene program—that is, moving some of this program into the new building, and leaving part of it in rented space.

Another practical factor that came into the analysis is that the industrial hygiene staff is well settled in extremely low-rent quarters. They have equipment installed, and in trying to balance the two, that did get some consideration.

Mr. BUSBEY. In your statement in answer to my question last year, you went on to say:

Also, we have in mind and are considering the possibility of consolidating at Cincinnati some of the closely related operations that are now not located in that city, with the view that this would make for a closer coordination and for a tighter operational program.

Mr. HOLLIS. Yes, sir.

Mr. BUSBEY. What operations did you have in mind?

Mr. HOLLIS. Well, largely, those I outlined a moment ago, sir. And, in addition, some of the field teams on the water-pollution program and the related field operational groups. In addition to these we would move some of the Washington staff.

Mr. BUSBEY. How many have been moved?

Mr. HOLLIS. To date 15 have been moved into the new building. These personnel are not directly on the payroll of the center.

Mr. BUSBEY. What floor do you quarter them on?

Mr. HOLLIS. They are interdispersed throughout the building in those areas most closely related to their work.

For example, those on the field survey team would be between the chemical section and the biologic section, because they are working with both groups.

Mr. BUSBEY. Would you enumerate those in the record for the committee, please?

Mr. HOLLIS. Yes, sir.

(The matter referred to is as follows:)

SPACE PROVIDED IN THE SANITARY ENGINEERING CENTER

From Ohio-Tennessee Drainage Basins Office, Cincinnati, Ohio:
3 professional personnel
2 clerical personnel
From Oak Ridge, Tenn.:
1 professional personnel
From St. Louis, Mo.:
1 professional personnel
From Ohio-Tennessee Drainage Basins Office on assignment to field activities in various parts of the country:
5 professional personnel
3 professional personnel

Mr. BUSBEY. Where were these 15 previously stationed?

Were any units moved from Washington in that 15?

Mr. HOLLIS. None of the Washington units have been moved yet, sir, but again, under the present planned use of the fourth floor, it would involve some of the Washington units.

Of the 15, Mr. Busbey, 11 were from the field, and we also moved our Ohio-Tennessee Basin Office into the new building. That involved four people.

Mr. BUSBEY. From what stations in the field did you move those 11?

Mr. HOLLIS. These were largely the mobile field teams on the water-pollution program and they were stationed at different locations throughout the country. There would be one team, say, in Georgia, and so forth.

Mr. BUSBEY. How would these teams operate better in the building than out in the field, if they are mobile units?

Mr. HOLLIS. The plan in moving, now that we are over the first phase of the program, was to move them all into Cincinnati, where they would have specific assignments in the building, and then, of course, some of them would operate out of the Cincinnati center.

What it permits us to do, frankly, is to get a better work result out of these 11 people, since we could have them in Cincinnati and could use them on both the broad research program at the center and for use when and as needed in the field.

Mr. BUSBEY. Will you supply for the record the various stations where these 15 came from?

Mr. HOLLIS. Yes, sir.

(The matter referred to is as follows:)

Field Station	*Number*
1. Ohio-Tennessee Drainage Basin Office, Cincinnati, Ohio	13
2. Oak Ridge, Tenn	1
3. St. Louis, Mo	1

UNUSED SPACE IN CINCINNATI BUILDING

Mr. BUSBEY. What is the amount of unused space in the building at the present time?

Mr. MACKENZIE. Mr. Busbey, I would like to answer that question, if I may.

Mr. BUSBEY. Yes, sir.

Mr. MACKENZIE. Currently, we have no unused space in the building, with the exception of the pilot-plant areas, which have not been equipped for use as yet.

In general, the laboratories are all in use, and if you would like, I would be glad to supply for the record a tabulation of the breakdown of the net usable space in the new building, with the current occupancy during the present fiscal year, and that proposed under the budgetary request now pending.

Mr. BUSBEY. I think that would be very helpful to the committee.

(The matter referred to is as follows:)

Space allocation in Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio

	Area	Persons currently occupying building	Persons scheduled to occupy building, fiscal year 1955
Summation:	*Square feet*		
Laboratory areas	29,600	64	83
Animal quarters and pilot plant	11,200	1	2
Library and stacks	2,300	2	2
Training	9,000	[1] 17	17
Shops and maintenance	8,300	11	11
Boilerroom and mechanical equipment	8,400	14	14
Offices	9,700	64	71
Engineering and research analysis	(4,800)	(36)	(43)
Administrative	(4,900)	[2] (28)	(28)
Stockroom and receiving	2,700	2	2
Files and records	1,600	3	3
Cafeteria	1,800	0	0
Assembly room	2,300	0	0
Total	[3] 86,900	178	205

[1] In addition, this space is also occupied by trainees attending courses. The 21 courses range up to 31 in attendance, with an average attendance of about 16. 7 commissioned officers and 5 civilian personnel plan, organize, and conduct the specialized training courses in radiological health and advanced sanitation; 1 technical aide supervises, maintains, and repairs the apparatus used in training work; 4 clerical personnel handle clerical work including correspondence relating to courses, texts, examinations, and training records.

[2] 5 personnel comprise the top direction of the center and there are 5 secretarial and clerical personnel for their immediate staff. In addition, there are the administrative officer of the center, 1 personnel officer, 1 finance, and 1 purchasing officer, the editor of Engineering Abstracts, and 13 clerical personnel.

[3] Includes finished usable space in the building; does not include unfinished 4th floor.

ADDITIONAL PERSONNEL TO BE MOVED TO NEW BUILDING

Mr. BUSBEY. How many more people who are engaged in related activities do you contemplate moving into the building?

Mr. HOLLIS. Presuming that we would have available the fourth floor, we were thinking of in the neighborhood of about 30 people.

Mr. BUSBEY. I think I should read into the record at this point a letter which I received from Mrs. Hobby, Secretary of the Department of Health, Education, and Welfare, dated January 20, 1954:

DEAR MR. CHAIRMAN: In the report of the House Appropriations Committee on the 1954 appropriation bill for this Department (Rept. 426, 83d Cong. (the following statement is made on page 11:

"The committee feels strongly that both the Industrial Hygiene and Environmental Health Center activities in Cincinnati should be moved into the new building and that serious consideration should be given to consolidating of the two activities organizationally."

Based on careful studies of the operations at Cincinnati we believe that it would not be advisable to carry out these particular provisions of the committee's recommendations at this time. The principal reasons for this conclusion are as follows:

1. The authorization of June 30, 1948, for the building contemplated six floors designed for research in sanitary engineering problems of national concern, with particular emphasis on water supply and water-pollution abatement. By the time appropriations for construction were available, September 6, 1950, costs had risen to the point where it was necessary to delete two floors, omit interior construction of most of the fourth floor, eliminate air-conditioning machinery and delay adding the second elevator. Consequently, the space available in the structure is inadequate to house both the industrial hygiene activities and the expansion which soon must come in environmental research if we are to cope with the pressing problems in this field.

2. Some of the technical services now located at headquarters and other field stations are more closely related to the work of the Environmental Health Center than the industrial hygiene laboratory and should have preference for such space as can be made available. Location of these services in the building would complete utilization of the structure, but this can be accomplished only when the fourth floor is finished.

3. Relocation of the industrial hygiene laboratory would involve expenditures approximating $200,000 for moving, alterations, and equipment adjustments, for which no funds have been provided.

4. Our industrial hygiene and Environmental Health Center operations involve two distinctly different specializations and orientations. One deals primarily with the medical aspects of industrial occupations; the other, with the engineering aspects of community control of environmental problems.

We are hopeful that our proposed utilization of the new building will receive the endorsement of your committee. If you desire additional information on this matter, I will be glad to have it supplied to you.

Sincerely yours,

OVETA CULP HOBBY, *Secretary.*

Mr. BUSBEY. From the committee report, the committee obviously thought you were not going far enough in what you had told the committee regarding personnel you were going to move to the new building. This letter, in effect, says if I interpret it rightly, that we are not only not going to do what the committee suggested, but we are not even going as far as we indicated to you before you wrote your report.

What is your reaction to that, Mr. Hollis?

Mr. HOLLIS. Mr. Busbey, I think we are faced here with a problem that, in all sincerity, we would like to solve in the best possible way. We have here a new building which in our judgement is destined, with intelligent utilization, to develop into a national hub of technical operations.

Mr. BUSBEY. I am sure the committee did not have any other objective than making the best use of the building.

Mr. HOLLIS. We feel that the two primary issues are: Upon completion of the fourth floor we could move part of the industrial hygiene operation into it. Unfortunately, there is not enough space to absorb it all. It would require a split within that program staff, and would prohibit, we think the possibility of consolidating other units of the sanitary engineering operation that would seem more logically to fit in with the center's operation.

We think we could get a much more effective operation and a better use by following that principle than we could by using a part of it for industrial hygiene.

Another minor additional point—and it is minor because you can always adjust it—is that the industrial hygiene laboratory is part of the occupational health program of the Service, and their responsibility in Washington is to a different division entirely from the responsibility of the engineering center.

I do not mean to overweight that factor, because you can always make administrative adjustments, but fundamentally the primary reason was a conscientious effort to work out what seemed to us to be the better or a more logical use of the structure.

Mr. BUSBEY. What is the fourth-floor space being used for at the present time?

Mr. HOLLIS. At the present time, just for storage, because it is not finished. There is no flooring down, and no partitions up, but we can and do use it for storage purposes.

Mr. BUSBEY. I understood Mr. McKinzie to say that you did not have any unused space in the building.

Mr. MCKENZIE. Mr. Busbey, I meant to say no unused space that is finished in the building. There is a section of the fourth floor that is not finished, so that it can be occupied, and put to use, sir.

NEED FOR ADDITIONAL ELEVATOR

Mr. BUSBEY. In regard to the second elevator that you say should be installed if the fourth floor is completed, when the building was designed for 2 elevators, it contemplated these 2 elevators taking care of all 6 floors; is that right?

Mr. HOLLIS. That is right, sir.

Mr. BUSBEY. So, this additional elevator would be taking care of only one-third of the capacity it was originally designed for, if it is put in to take care of the fourth floor.

I think that would be rather costly.

Mr. HOLLIS. Of course, the practical problem on elevators is to speed up and provide service, so as to prevent undue loss of time. We have found that with the floors we now have in use, that one elevator is inadequate.

As you know, while the building has 4 floors, in addition to the 4 floors above ground we have 2 basements, and we have a good bit of work going on there.

For example, our training program is in the first basement, and then below that we have some of our heavier research work in progress. So, in actuality, the one elevator is serving six floors now, including the two basements.

Mr. BUSBEY. Well, I assume that you, know without my telling you, that the committee is rather touchy sometimes about its recommendations being totally disregarded.

Mr. HOLLIS. Mr. Chairman, if I may say this, sir:

We felt our explanation as offered in the letter would not preclude, if it was disagreed with, an alteration in policy, because actually nothing can be done until the fourth floor is finished. The moving of the industrial hygiene section could not have been effected, as I understand it, unless and until the committee authorized the expenditure of the money for them to be moved.

So, we did not feel in suggesting this, sir, that we were violating or making any final decision before the committee had a chance to consider the proposal.

We were thinking of it more as an analysis, and based on our study of the situation since the building was finished.

Mr. LARMON. Mr. Chairman, I hope that Mr. Hollis and Dr. Scheele can convince you that this is the best means of reaching the objective that the committee has in mind, and convince the committee of that.

Mr. BUSBEY. Mr. Fogarty?

COST TO COMPLETE BUILDING

Mr. FOGARTY. In regard to this new building, Mr. Hollis, is there anything needed now to put this fourth floor in complete operation?

Mr. HOLLIS. Yes, sir.

Mr. FOGARTY. What is needed?

Mr. HOLLIS. We would have to have the authorization to complete the interior. As it stands now, it is just the concrete block walls and the ceiling of the fourth floor.

Mr. FOGARTY. You do not need any additional authorization. What you need is some money; is that right?

Mr. HOLLIS. Some money; yes.

Mr. FOGARTY. How much money do you need to complete it? If you do not have that figure immediately available, you may place it in the record.

(The matter referred to is as follows:)

STATEMENT ON COST OF STRUCTURAL COMPLETION OF THE FOURTH FLOOR, AND ADDITIONAL ELEVATOR, ROBERT A. TAFT SANITARY ENGINEERING CENTER, ENGINEERING, SANITATION, AND INDUSTRIAL HYGIENE APPROPRIATION

Based on informal estimates developed in conjunction with the Public Buildings Service, General Services Administration, $230,000 will be required for the structural completion of the fourth floor of the Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio. This would include floors, walls, partitions, ceilings, electrical connections, extension of plumbing, heating, and other laboratory services. In addition $40,000 is required for the installation of an elevator in a shaft already provided for.

TIME REQUIRED TO COMPLETE FOURTH FLOOR

Mr. FOGARTY. How long will it take to finish and equip that fourth floor, if you receive the money by July 1?

Mr. HOLLIS. We have not asked the public-building officials specifically for information on that, but it would be my engineering judgment that it would require about 4 to 6 months.

Mr. FOGARTY. How would that affect your work, if you had that available within 6 months?

Mr. HOLLIS. We feel it would permit us, subject to concurrence of the committee to move ahead with the final plan for space utilization. If this were agreed to, we would move into the building some of the related sanitary-engineering operations, some out of Washington and some more from the field. We would proceed on that basis to get centered at Cincinnati in that building the hard core of our technical sanitary-engineering operations.

Mr. FOGARTY. Well, it is really needed, then, in your opinion, to complete your operations?

Mr. HOLLIS. Yes, sir.

GRANTS TO STATES

Mr. FOGARTY. We are no longer appropriating money for grants to States for water pollution control, are we?

Mr. HOLLIS. No, sir.

Mr. FOGARTY. That went out last year, or the year before; is that right?

Mr. HOLLIS. That went out 2 years ago.

Mr. FOGARTY. I believe it was cut out by an amendment offered on the floor of the House.

The Truman budget last year recommended $900,000, and the Eisenhower budget cut it out again; was that it?

Mr. ACKERMAN. The Truman budget was $3,985,000.

Mr. FOGARTY. For grants to States?

Mr. ACKERMAN. No; that is the total appropriation for engineering sanitation and industrial hygiene, sir.

Mr. FOGARTY. How much of it was grants for water pollution control?

Was there anything budgeted for that?

Mr. HOLLIS. The Truman budget did not include that item under the appropriation "Engineering, sanitation, and industrial hygiene."

Mr. FOGARTY. There was no budgeted item last year before us for grants to States?

Mr. HOLLIS. Yes, sir; $900,000 in the appropriation "Grants for water-pollution control."

Mr. FOGARTY. Do you know whether or not the States have picked up the work that was done in the 2 or 3 years that these grants were being made to the States for water-pollution control?

Mr. HOLLIS. In general, they have; and I say that, Mr. Fogarty, on the basis of the total appropriated moneys in the States for water-pollution control, which has held fairly constant over the last 4 years. That does not mean that each State has; but overall, the total has held constant.

Mr. FOGARTY. I believe Congressman Spence made a speech about this problem a couple of years ago.

Mr. HOLLIS. He did make a speech on the floor of the House in regard to it; yes, sir.

The instance I had in mind was his comment when the grants to States were knocked out on the floor of the House. He spoke favorably to their retention 2 years ago. He has made several comments on the floor since, and one had to do with the pollution problem on the Ohio River generally.

Mr. FOGARTY. I see. That is all.

Mr. BUSBEY. Mr. Fernandez?

Mr. FERNANDEZ. Doctor, where is the $230,000 included in the budget to complete the building?

Mr. HOLLIS. That is not in this appropriation, or in these estimates.

Mr. FERNANDEZ. Where is it?

Mr. HOLLIS. There has been no request submitted for that item.

Mr. FERNANDEZ. There has been no request submitted?

Mr. HOLLIS. No, sir; no request has been submitted.

SALARIES AND EXPENSES FOR RESEARCH CENTER AT CINCINNATI

Mr. FERNANDEZ. In these estimates there is only one very large item reflected as an increase in the total appropriations, and that is in the amount of $147,800. Is that in connection with the center in Cincinnati?

Mr. HOLLIS. Yes, sir; that is for the Robert A. Taft Sanitary Engineering Center for Research.

Mr. FERNANDEZ. The entire amount is for that?

Mr. HOLLIS. All of it; yes, sir. That represents 20 positions.

Mr. FERNANDEZ. That covers the 20 positions which is an increase of $97,692, less $18,092, for lapses, and then you have other increases that make up the total of $147,000?

Mr. HOLLIS. Yes, sir.

Mr. FERNANDEZ. The first item is travel, in the amount of $7,200. Is that in connection with the center?

Mr. HOLLIS. That is in connection with the center; yes, sir. That entire item is in connection with the center.

Mr. FERNANDEZ. What does that travel consist of? What is it for?

Mr. HOLLIS. It would involve the travel of the people there.

Mr. ACKERMAN. It involves three items, essentially, Mr. Fernandez: It involves a small amount of money for bringing consultants to the center whose travel we would pay, particularly in connection with the expanded air-pollution control program.

It involves individuals going out from the center—technical experts—to consult with municipal and State authorities with regard to the air-pollution problem, and it includes a third item of travel of small field teams, usually consisting of about three people.

This would be sufficient to maintain such teams in the field for about 100 days during the fiscal year.

Mr. FERNANDEZ. Is this statement, showing the breakdown of the $147,000 requested as an increase, in the record, Mr. Chairman?

Mr. BUSBEY. That is not in the record.

Mr. FERNANDEZ. Do you not think, Mr. Chairman, that we should have that breakdown in the record?

Mr. BUSBEY. Yes, I think you are right. We will put it in the record at this point.

(The matter referred to is as follows:)

Environmental research activities

	Estimate 1954		Estimate 1955		Change (+) or (−)	
	Position	Amount	Position	Amount	Position	Amount
Personal services	89	$450,800	109	$530,500	+20	+$79,700
Travel		12,500		19,700		+7,200
Transportation of things		5,900		6,900		+1,000
Communication services		7,400		9,500		+2,100
Rents and utility services		25,600		27,200		+1,600
Printing and reproduction		13,600		15,300		+1,700
Other contractual services		7,500		10,600		+3,100
Supplies and materials		14,700		30,200		+15,500
Equipment		9,900		45,000		+35,100
Taxes and assessments		1,800		2,600		+800
Total		549,700		697,500		+147,800

GENERAL STATEMENT

The new environmental health center at Cincinnati provides for the first time the facilities required to begin to close the wide gap between the problems being created by modern technology and the knowledge we must have to solve them. Obviously, the total amount of research required to meet this need goes far beyond the capacity of our Cincinnati laboratory. However, we feel confident that the leads developed at Cincinnati will do much to stimulate the latent research potential in these fields at engineering institutions throughout the country. Investigations which will receive additional emphasis in 1955 are as follows:

Air-pollution investigations.—Acute suffering from community air pollution, both in the United States and abroad, is becoming increasingly common. Evidence is accumulating that respiratory diseases are more prevalent and more severe where the atmosphere is polluted. A year ago in London, during a period of smoky fog, the city suffered 8,000 deaths in excess of the normal. The rise in the death rate exceeded that of the terrible cholera epidemic of 1886.

This year, in order to initiate much-needed research on the significance of the community air pollution problem and the best methods of attacking it, two small projects were started at the environmental health center. A device for the collection of organic particulate matter from the air was developed and, in cooperation with local health agencies, installed in 17 cities to obtain information as to the organic content of the air under various conditions of meteorology, topography, and industrial or residential activity. Within the last few weeks, we have received a number of urgent requests from industry for such data. A pilot study was undertaken to determine whether or not fluctuations in weekly mortality rates in a large industrial city are related to air quality as affected by weather conditions.

For 1955, it is proposed to: (1) further develop and evaluate air sampling and analytical methods under practical operating conditions, and provide laboratory analytical services to support field studies of community air pollution with respect to inorganic and organic particulates, gases, vapors, and allergenic or other materials of biological origin; (2) provide for studies, at a modest level, of the toxicity of pollutants found in the air; (3) extend the analysis of available mortality and morbidity data in relation to measured levels of air pollution in selected communities; and (4) insofar as possible, comply with requests for assistance on urgent problems of community air pollution control.

Studies of virus transmission.—Important new epidemiological information has been obtained in recent years concerning the role of water in the transmission of virus diseases, such as infectious hepatitis, known to prevail widely in our population. Similar questions are being investigated concerning certain fungus diseases. It is proposed to continue fundamental studies of the occurrence and persistence of viruses and fungi in water, to develop methods for their laboratory identification and enumeration, and to determine the effectiveness of chlorination and other processes in the destruction of viruses.

Food sanitation.—Two acute problems will be given special attention in 1955. The development of simple, rapid methods of determining whether or not food has been contaminated by micro-organisms or by the poisons secreted by the common staphylococci will be pursued. Also, investigations will be conducted on the gulf coast to determine the extent to which shellfish absorb contamination,

and their ability to cleanse themselves in unpolluted areas. This is a continuation under warm water conditions of the studies recently completed in colder waters at Woods Hole.

Development and improvement of sanitation control techniques.—Improvements in tax-supported public health services are being attained and money economies effected by applying new or improved tools and methods, such as the membrane filter procedures developed by the environmental health center for the bacterial examination of drinking waters. Potential savings from this procedure are estimated in terms of millions of dollars annually as its application in public health laboratory practice is extended. Similar savings for government and industry may be realized if current studies of a new germicide for use in the milk and food industry come up to their promise.

Other studies.—Among other investigations to be pursued at the center are: (*a*) the development of analytical procedures for chemicals in the environment, (*b*) the development of rapid automatic instrumentation for analysis of chemical and microbiological pollutants, (*c*) the study of practical procedures in the use of selected germicides to insure proper selection and use in specific circumstances, (*d*) the continued development of the application of the membrane filter technique, especially for the identification and estimation of important intestinal pathogens, the salmonellas and shigellas, and for other field uses, and (*e*) the abstraction of domestic and foreign technical literature related to the environmental health field for the benefit of the center's research staff and official health agencies by the publication and limited distribution of Public Health Engineering Abstracts.

Maintenance of buildings and facilities.—Costs of operating and maintaining the center at Cincinnati are estimated at the 1954 level: 24 positions and $107,400 total cost. This represents a minimum level in relation to legal requirements, safety, security, cleanliness, and prevention of undue deterioration of facilities.

PERSONAL SERVICES

The additional professional and supporting personnel requested to carry out the expanded research program described above are as follows:

1 Senior grade sanitary engineer	$7,907
1 GS–13 toxicologist	8,360
1 GS–12 physicist	7,040
1 GS–11 public health analyst	5,940
1 GS–11 pharmacologist	5,940
1 GS–9 plant physiologist	5,060
1 GS–9 spectroscopist	5,060
1 GS–9 chemist	5,060
1 GS–9 meteorologist	5,060
1 GS–9 biostatistician	5,060
1 GS–9 mechanical engineer	5,060
1 GS–7 physicist	4,205
1 GS–7 statistician	4,205
1 GS–7 chemist	4,205
3 GS–5 scientific assistants	10,230
3 GS–3/4 clerical and laboratory aids	9,300
Total (20) increase, permanent positions	97,692
Lapse	—18,092
Net permanent postions	79,600
Pay in excess of 52-week base	100
Subtotal	79,700

OTHER OBJECTS

The estimate includes provision for a total increase of $68,100 for other objects required for the expanded research program. The air-pollution studies will require temporary assignments of personnel to field locations in connection with the air sampling and morbidity analysis studies, and, consequently, an increase in travel requirements is necessary. The specialized equipment and supplies required for these studies are not now available at the center, and will have to be designed and built for each project. Detailed requirements are as follows:

		Increase
Travel		$7,200
The increase includes 200 days of temporary duty travel at $22, 300 days of field travel for survey units at $9, and $100 for travel of special consultants.		
Transportation of things		1,000
Provision is made for shipment of samples to Cincinnati for testing, and freight charges for equipment.		
Communication services		2,100
The increase includes $1,100 for local telephone service, $300 for toll calls, $200 for telegraphic service, $200 for nonpenalty mail postage, and $300 for penalty mail costs.		
Rents and utility services		1,600
The increase includes $1,600 for electricity to cover additional lighting and power requirements.		
Printing and reproduction		1,700
The increase includes $1,000 for printing of technical reports on research studies, and $700 for duplicating and blueprinting.		
Other contractual services		3,100
The increase includes $2,100 for processing of local morbidity data for air-pollution studies, $500 for repairs to laboratory equipment, and $500 for servicing field survey equipment.		
Supplies and materials		15,500
Supplies required for development and evaluation of air sampling and analytical methods, including precision glassware for extraction, distillation and fractionalization, membrane filters and filter media, organic solvents, photomicrography supplies, and other laboratory supplies	$5,000	
Toxicological and pharmacological supplies, including media, chemicals, stains, animal feed, and special pharmacological glassware	3,500	
Laboratory animals	4,300	
Operating supplies for field survey units and sampling equipment	2,700	
Equipment		35,100
2 mobile gas samplers at $2,500 each	$5,000	
1 controlled aerosol chamber, with fog and smoke generators, for laboratory generation and analysis of air pollutants	5,000	
1 special laboratory hood for handling toxic substances	3,000	
1 vacuum evaporator for particle size analysis	2,000	
1 transmissometer for gross air-pollution level determinations	1,500	
Field sampling equipment	2,000	
Pharmacological equipment, including basal metabolism and animal surgery equipment, and equipment for measurement of respiratory and other physiologic functions	5,000	
4 animal exposure chambers for prolonged, measured exposure of experimental animals	6,000	
Blowers and grinders for feeding pollutants into exposure chambers	1,000	
Animals cages	2,000	
Plant physiological equipment	1,000	
Statistical equipment	1,000	
Automotive equipment for survey units	600	
Taxes and assessments		800
Payments under the Federal Income Contributions Act.		

COMPARISON WITH LAST YEAR'S REQUEST

Mr. FERNANDEZ. As I recall, last year, you were asking for 22 additional employees in connection with the center.

Are these in addition to those 22 of last year?

Mr. HOLLIS. No, sir.

Mr. FERNANDEZ. Are they the same 20?

Mr. HOLLIS. They are the same 20 that were in the budget estimates before the committee last year.

Mr. FERNANDEZ. And, they are in the budget again this year.

Mr. HOLLIS. Yes, sir.

Mr. FERNANDEZ. And, I suppose they will be in the budget next year, if you do not get them this year?

CARBON-14

On page 5 of your statement, you say the development of thermonuclear devices creates a potential buildup of carbon-14, a radioactive element which would persist in the environment for thousands of years.

What do you mean by a buildup of such thermonuclear devices by major powers?

Mr. MACKENZIE. Well, essentially the major powers we refer to, I think, are Russia and the United States, so far as thermonuclear devices are concerned.

Mr. FERNANDEZ. What is carbon-14?

Mr. MACKENZIE. It is a radioactive isotope with carbon, which has a slightly heavier weight than the more common types of carbon. It is radioactive, and has a very long half life, the half life amounting to about 5,000 years.

Mr. FERNANDEZ. They have been exploding those bombs in New Mexico and in Nevada, and I am really interested in just what that carbon-14 is, since you say it would persist for thousands of years. Is it all around us there?

Mr. MACKENZIE. The carbon-14 that is referred to, sir, would not come from the ordinary atomic explosion.

Mr. FERNANDEZ. I am glad to hear that.

Mr. MACKENZIE. We are talking about the so-called H-bomb explosions. The carbon-14 so generated could be liberated through the atmosphere, and what will become of it ultimately nobody can say with complete definiteness. It will be incorporated into the products of the earth, essentially, some of it in the sea and some of it in the vegetation, and some in rocks, and other deposits of the earth, and some will remain in the atmosphere, perhaps, as free carbon dioxide.

Mr. FERNANDEZ. Do you think you could give us an explanation for the record, in language we laymen could understand, just what this means and what the danger is?

Mr. MACKENZIE. The danger, I think, that is being referred to here, is the possibility of a building up of carbon–14 in human tissue, which essentially would come from materials now which human beings would ingest principally in their food. As you know, carbohydrates are found in all growing plants, and are incorporated in turn in animal tissue from the food that they consume.

Mr. FERNANDEZ. How would it manifest itself?

Mr. MACKENZIE. Well, carbon–14 is a radioactive material, and its disintegration would have a harmful effect on human tissue, as any other radioactive material would have that is incorporated in the body structure.

Mr. FERNANDEZ. What would be its effect on a human being?

Mr. MACKENZIE. It would destroy the cells essentially, where these disintegrations occur.

For instance, in the treatment of cancer, and I am not a cancer expert, but this may be a lay explanation: radioactive materials are probably introduced into the body for the specific end result of destroying the cancerous tissue.

Similarly, if radioactive materials come into the body, they will destroy normal tissue as well.

Dr. SCHEELE. Mr. Fernandez, and Mr. Chairman, may I interpose a word at this point?

Mr. BUSBEY. Surely.

Dr. SCHEELE. I think the record should be clear here that our interest in following the possible buildup of such an element coming from thermonuclear tests which might be carried on now or which may be carried on in the future, is not an indication that we believe, or that anyone believes, that any harm is being done on any levels that are dangerous as such tests now exist.

Any given number of additional tests by anyone would necessarily build up the contact level, but it is a matter of research to be intelligent as to what evidently has happened, but I think the record should be abundantly clear that this is not implying that we think harm is being done. It would be unfortunate if that impression were to be gained from anything which has been said here this morning.

PROBLEMS RELATED TO INDUSTRIAL USE OF FISSIONABLE MATERIALS

Mr. FERNANDEZ. The same paragraph of your statement states:

> Proposals designed to encourage peacetime uses of atomic energy by private industry will accelerate the production of other fission products on a vast scale in multiple locations

What do you mean by that?

Mr. HOLLIS. What is meant by that is that as we move into expanded peacetime uses of fissionable materials, as we develop powerplants, electric power through use of nuclear fuels, as that becomes practical and as other industrial uses become practical, there likely will be a rapid expansion in the use of these materials, and hence a greater need to keep our level of intelligence up with the development so that we know that the present extremely low levels do not reach a point of concern.

Mr. FERNANDEZ. That again ties in with what Dr. Scheele said. It is a matter of foreseeing what might be needed in the future, perhaps the long-distance future.

Mr. HOLLIS. Yes. For example, in the petroleum industry we suffered considerable damage to land and to streams due to heavy brine discharges as the industry developed before we got on to the job of working out practical remedial measures so that industry could apply those to prevent these heavy salt damages to streams and land.

That same situation followed the paper and paper-pulp industry as it developed. It produced byproduct problems, and then we moved in and solved them.

The difference between the normal industrial development and the atomic industrial development, as everyone recognizes now, is that we must keep protection abreast or ahead of the health problem so as not to develop health hazards in the environment.

Mr. FERNANDEZ. You have a requested increase of $147,000 for the one item we discussed, and the rest of your budget is a little less than 1954?

Mr. HOLLIS. Yes.

Mr. FERNANDEZ. That is all I have.

ACTIVITIES AND PERSONNEL THAT SHOULD BE TRANSFERRED TO NEW BUILDING

Mr. BUSBEY. Mr. Hollis, I wonder if you would file a statement for the record on what activities and personnel should be transferred to the new building in Cincinnati?

Mr. HOLLIS. Yes, sir.

(The information requested is as follows:)

PROPOSED MOVES TO SANITARY ENGINEERING CENTER FROM OTHER PROGRAMS OF THE DIVISION OF SANITARY ENGINEERING SERVICES

From Washington:
Water supply and water pollution control program:
Water and sewage census unit (4):
2 technical personnel
2 statistical personnel
Technical services (3): 3 technical personnel

NOTE.—With regard to the water and sewage census unit, the minimum space requirement would be approximately 2,000 square feet which includes appropriate space accommodations to house heavy addressograph machines, equipment, and numerous files.

From field:
Boston: 3 technical personnel
Little Rock: 2 technical personnel

NOTE.—Moves to be made upon completion of interagency survey work.

From Washington: Milk, food, and general sanitation programs:
2 technical personnel
1 clerical personnel

Mr. BUSBEY. If there are no further questions, that will be all for today.

DISEASE AND SANITATION INVESTIGATIONS AND CONTROL, TERRITORY OF ALASKA

WITNESSES

DR. JACK C. HALDEMAN, ASSISTANT CHIEF, BUREAU OF STATE SERVICES
DR. OTIS L. ANDERSON, CHIEF, BUREAU OF STATE SERVICES
RUSSELL R. LARMON, ASSISTANT SECRETARY, DHEW

SALARIES, EXPENSES, AND GRANTS

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$1,107,500	$1,082,000	$1,062,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		225	
Adjusted appropriation or estimate	1,107,500	1,082,225	1,062,000
Unobligated balance, estimated savings	−17,647		
Obligations incurred	1,089,853	1,082,225	1,062,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Special grant to Alaska for general health purposes	$537,000	$540,000	$540,000
2. Direct operations:			
(a) Technical assistance to Alaska	120,488	108,000	102,000
(b) Field and laboratory investigations	371,066	372,000	365,000
(c) Administration	61,299	62,225	55,000
Obligations incurred	1,089,853	1,082,225	1,062,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	71	65	64
Full-time equivalent of all other positions	1	1	1
Average number of all employees	66	63	61
Average salaries and grades:			
General schedule grades:			
Average salary	$4,477	$4,290	$4,290
Average grade	GS-6.3	GS-5.9	GS-5.9
Crafts, protective, and custodial grades:			
Average salary	$2,781	$2,692	$2,692
Average grade	CPC-4.0	CPC-3.0	CPC-3.0
Ungraded positions: Average salary	$6,450	$6,301	$6,301
01 Personal services:			
Permanent positions	$339,794	$324,358	$315,158
Other positions	6,196	8,000	8,000
Regular pay in excess of 52-week base	643	642	642
Payment above basic rates	59,435	56,400	54,400
Total personal services	406,068	389,400	378,200
02 Travel	35,620	40,700	39,200
03 Transportation of things	15,256	19,700	14,500
04 Communication services	2,610	2,725	2,000
05 Rents and utility services	41,284	41,300	41,300
06 Printing and reproduction	509	500	500
07 Other contractual services	7,715	7,700	7,700
08 Supplies and materials	35,702	32,000	31,000
09 Equipment	6,692	6,800	6,200
11 Grants, subsidies, and contributions	537,000	540,000	540,000
15 Taxes and assessments	1,397	1,400	1,400
Obligations incurred	1,089,853	1,082,225	1,062,000

Analysis of Expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$74,676	$55,888	$58,113
Obligations incurred during the year	1,089,853	1,082,225	1,062,000
	1,164,529	1,138,113	1,120,113
Deduct:			
Adjustment in obligations of prior years	2,798	----------	----------
Obligated balance carried to certified claims account	275	----------	----------
Unliquidated obligations, end of year	55,888	58,113	60,113
Total expenditures	1,105,568	1,080,000	1,060,000
Expenditures are distributed as follows:			
Out of current authorizations	1,048,513	1,040,000	1,020,000
Out of prior authorizations	57,055	40,000	40,000

Mr. BUSBEY. The committee will come to order.

The next appropriation request we have before the committee is the request of the Public Health Service for the Territory of Alaska, "Disease and sanitation investigations and control."

GENERAL STATEMENT

At this point we will insert Dr. Haldeman's prepared general statement regarding this portion of the budget.

(The statement referred to follows:)

Mr. Chairman and members of the committee, this appropriation provides funds to assist Alaska in the development and maintenance of its overall health program. It also provides funds for research fundamental to solving many of the public health problems peculiar to low temperature areas.

The establishment of this special Alaska program was a result of the greatly increased awareness of the economic and military importance of Alaska and other low temperature areas, together with the growing realization that these areas now represent the principal remaining regions for future settlement by our rapidly expanding population.

The strategic location of the low temperature areas of North America with reference to national security is due to the fact that the shortest air routes between the Eastern and Western Hemispheres lie across the Arctic.

Alaska is undergoing not only the usual consequences of becoming a vast defense impact area but it is also entering a critical period of industrial development and expansion. This forced development of Alaska has been marked by an influx of military and civilian population which has accentuated the already acute health and sanitation problems of the area. The rapid upward trend in population continues. It is estimated by the Bureau of the Census that during the peak employment season of 1952 the population reached 182,000—an increase of 31.9 percent over the 1950 peak season. Thus Alaska continues to be confronted with aggravation of its sanitation and housing problems—which I think are without parallel in any other defense boom area, even during World War II.

Climate in itself is no barrier to settlement of low-temperature areas. Earlier civilizations developed first in subtropical areas and gradually moved northward. This northern migration has occurred as man, an essentially tropical animal, has learned to control his environment by providing suitable clothing, housing, and adequate environmental facilities.

Observation of existing environmental conditions in Alaska leads to the inevitable conclusion that a greater part of the population is living under extremely insanitary conditions. Sporadic outbreaks of typhoid fever, and other gastroenteric disease (dysentery and so forth), provide evidence of the health hazards involved.

Control of these environmental conditions is complicated in a greater part of the Territory by the prolonged periods of low temperature. The low temperatures seriously interfere with the construction and operation of practically every known sanitary facility, and influence nearly every generally accepted measure of disease control routinely applied in environmental sanitation.

It is somewhat paradoxical that the low-temperature areas of the world, although they contain the fewest people per square mile, are plagued with those major health problems usually associated with overcrowded living conditions. Even in the spacious North it is not uncommon for an Eskimo family of 12 to be living in a one-room hut in order to conserve heat. The cost of housing is such that many white families are living under conditions equally as bad. The attack rate of those diseases spread directly from person to person is understandably high under such conditions.

It is therefore not surprising to find that tuberculosis causes 20 percent of all deaths in the Territory and that in the Territory's one orthopedic hospital there are more cases of bone tuberculosis under one roof than in any other spot in the entire North American Continent Tuberculosis and accidental deaths rank first and second as causes of death as contrasted to heart disease and cancer in the continental United States Pneumonia is a much more frequent cause of death and death rates from communicable diseases such as whooping cough, diphtheria, and scarlet fever are approximately 10 times those seen here

As might be expected, in view of the wealth of fauna in low tempreature areas, some animal borne diseases are much more prevalent than in temperate areas Outbreaks of gastroenteric disease are frequent in Alaska, particularly in the spring when melting ice and snow expose and redistribute the excreta which accumulates during the long winter months

These problems were recognized by Congress in 1948 when the chairman of the House Appropriations Subcommittee called hearings to consider the problem.

As a result of the findings of these hearings, this special Alaska health appropriation was passed which provides for—

1 Supplemental funds to augment those appropriated by the Territory for establishing necessary health services

2 The loan of specialized personnel to the Alaska Department of Health to help administer these services; and

3 The establishment of a program of research and investigation to study the underlying causes and differences involved in low temperature health problems.

The first phase of this program, the provision of special grant funds, has enabled the health department to expand its program so as to render health services to many isolated areas to which such services had never before been available.

During the same period the Territorial legislature has recognized the Territory's own responsibility in the matter. Whereas only $556,000 was appropriated for health purposes for the biennium beginning in 1947, $1,108,000 was appropriated for the biennium beginning in 1953. This represents a per capita appropriation for general health purposes exceeded by only 1 of the 48 States. For tuberculosis hospitalization, the per capita appropriation of Alaska is higher than that of any State or of any other Territory. However, when the amount of money available for public health activities excluding hospitalization is considered, there has been an actual decrease of $324,165, or 24 percent in the last 4 years. This has resulted from a decrease in Federal grant-in-aid funds, and has forced many contractions in program.

It should be pointed out that Alaska's taxing ability is limited, due to its small population, and many of its public health problems have been federally created.

The urgency and magnitude of public health problems in the Territory create an even greater than usual need for specialized professional personnel. The assignment of trained Public Health Service personnel to the Alaska Department of Health has been of particular importance, in view of the difficulty experienced by the Department in recruiting qualified personnel in sufficient numbers to fill key positions for carrying on essential public health services. This type of assistance is serving to stimulate the development of organized health programs in many problem areas.

The Arctic Health Research Center in Anchorage is the outgrowth of the establishment of the third phase of the assistance to Alaska program—that of research and investigation.

The investigative activities of the Arctic Health Research Center have been carried on by six branches covering the following fields and subjects: environmental sanitation, entomology and insect control, epidemiology and biometry, animal borne diseases, physiology, and biochemistry and nutrition.

Studies of environmental sanitation problems in Alaska are among the most fundamental of the center's activities. Major emphasis in this field has been given to the development of designs, installation methods, and operational procedures which will insure safe water distribution and sewage disposal in low temperature areas. Studies are being conducted at all levels, from the problems of the individual homesteader to the largest community in the Territory. Since freezing of water and sewer mains has been found to be the major source of trouble in maintaining community facilities, attention has been focused on the development of economical means of overcoming this hazard. One solution to the problem of freezing in water distribution systems is the single main recirculating water distribution system developed over the past 3 years at the center. Scale models of the system have been successfully tested in the laboratory and the first full-scale installation is now being made in the Fairbanks area. As additional funds become available, the new system will be extended to other sections of the city possibly with modifications based on observations made during the coming winter's operation.

Other studies of single premise water supplies and sewage disposal are being conducted with particular attention to the problems created by the existence of permafrost. An experimental well has been drilled through the permafrost and is being subjected to careful observation to determine methods of preventing freezing.

Four experimental septic tanks were installed in the permafrost area at College, Alaska, in 1950–51 and have been subject to careful observation during the subsequent winter seasons. The successful operation of these tanks has led to the adoption of septic tanks as part of standard installation procedures recommended by the Alaska Department of Health.

Observations on the Fairbanks sewer system were begun in 1949 and have been continued. Records of variations in ground and sewer temperatures have

been accumulated as a basis for design of a sewage disposal system adapted to the specific needs of the area.

Studies of Alaskan insect pests have provided considerable data concerning the identity, distribution, and breeding habits of species found in Alaska. Through a series of areawide surveys, the biologies of the most important species are being established in the various sections of the Territory. Biological surveys have been conducted to date in southeastern Alaska, upper Cook Inlet, Copper River, Katmai, and Valdez areas. Since the importance of the different species varies from area to area, this information is essential for working out regional control programs for the entire Territory.

In addition to the biological studies, the entomology branch is also carrying on important investigations with respect to the development of practical and economical methods of insect control applicable in Alaska. Since control measures commonly accepted in the States, such as swamp drainage and spraying of breeding areas, are usually impractical in Alaska, modifications of standard practices and the development of new techniques have been necessary. Initial efforts in the insect-control program were directed toward the development of apparatus and methods for ideal control of adult mosquitoes which constitute the most important pest group in Alaska. The problem was to develop a device which would deliver a very fine spray of insecticide in droplets small enough to remain airborne and still capable of killing flying insects in contact. Aerosol spray units were developed for use at three levels of operation: (1) single units for protection of individual homesteads and other small areas; (2) spray booms mounted on trucks for mobile protection of larger areas, such as small communities; (3) spray booms to be installed in small planes for protection of more extensive areas and communities without roads.

The single units and the truck-mounted booms were developed and have both been used effectively in the Territory. Efforts are now being devoted to further refinements of the spray nozzle and the apparatus designed for use in small planes. Observations indicate that small plane spraying is probably the most practical and efficient method of control under Alaskan conditions. The main problems have been to develop a nozzle capable of producing an effective spray fine enough to conserve the insecticide, and to develop the entire apparatus so that it can be easily installed and used by bush pilots during their regular operations in carrying cargo or passengers.

In the process of testing droplet sizes and insecticide formulations, certain microtools are being developed, including microshears and micromanipulator, which may find wide application in other fields of microdissection.

Several statistical studies have been completed or are nearing completion in the Epidemiology and Biometrics Branch. The lack of reliable data concerning even the most basic vital phenomena, such as Alaskan population figures, mortality and morbidity rates, has meant that considerable ground work has had to be done in compiling accurate data as a basis for future planning. Some of the studies carried on by this Branch are (1) compilation of basic data concerning population distribution and characteristics; (2) a study of the causes of accidental and violent deaths in Alaska; (3) a study of tuberculin sensitivity based on data from the Alaskan BCG program, indicating marked racial and geographic variations in the numbers of tuberculin-sensitive individuals in different parts of the Territory; (4) a study of the causes for admission to Alaskan hospitals as one means of estimating the general health picture; (5) a sickness survey carried out in the Anchorage area—the first such survey to be undertaken in Alaska—to determine the types of disabling and nondisabling illness experienced by a representative group of Anchorage residents over a year's time.

Investigations in the field of animal-borne diseases have been directed at a detailed study of the diseases found in the Alaskan animal population which are of public health or economic importance to man.

Among the investigations of parasitic diseases of Alaskan animals the study of echinococcosis or hydatid disease has proved of special significance. Since the work on *Echinococcus* was begun at the center, several cases of human infection have been discovered. Data are being accumulated concerning the prevalence and distribution of the organism and its hosts and the etiology of the infection. Within the past year it has been demonstrated that flies are a possible vector in transmission of this disease. Experimental infections carried out in the laboratory with the parasite have proved conclusively that two distinct species of *Echinococcus* exist in Alaska. The species found in animals on the mainland differs markedly from the species found on St. Lawrence Island both in host specificity and in the character of the infection produced in the human host. In man the

mainland species produces a unilocular cyst, which is quite amenable to surgery. In contrast, the St. Lawrence species produces a multilocular cyst which invades the tissue in a process similar to a malignancy, producing a more serious condition which is considerably more difficult to remove surgically.

Studies of trichinosis and diphyllobothriasis or fish-tapeworm infection carried on by this Branch for the past 3 years are now nearing completion. Discovery of trichinosis among certain marine mammals, particularly the white whale or beluga, has revealed another possible, although perhaps uniquely Arctic, source of human infection since these animals form an important part of the diet of the coastal Eskimos. Investigation of the fish tapeworm, *Diphyllobothrium latum*, has shown that human infections with this parasite are prevalent in areas where fresh-water fish constitute the major part of the native diet. Experimental infections conducted in connection with life-cycle studies of this parasite have been carried out in the laboratory, demonstrating that a wide variety of definitive animal hosts are involved in the spread of this infection. Knowledge of the life cycle of the parasite and of the potential hosts is essential to the development of a practical control program. Fish-tapeworm larvae have recently been found in the Alaska red salmon. This is the first record of the occurrence of this parasite in salt-water fish in Alaska. Experimental infections are being made to determine whether these larvae belong to the same species of *Diphyllobothrium* which infects fresh-water fish.

In addition to studies of parasitic diseases, work is also being carried on concerning the problem of canine distemper among arctic sled dogs. Control of these costly outbreaks of distemper is essential to the Eskimos, since without this Arctic beast of burden they would frequently face starvation. Once it was determined that the disease found among Arctic dogs was identical with that found in the States, an experimental inoculation program was inaugurated in certain Arctic villages using standard distemper vaccines. The efficacy of last summer's vaccination program at Wainwright was put to a real test by a sudden outbreak of distemper in the village during the past winter. Only 1 of the vaccinated dogs became ill but recovered with treatment, while 46 dogs, absent from the village at the time of the immunization program, died of the disease. On the basis of this evidence it has been recommended that a Territorywide immunization program be instituted.

Physiological investigations conducted by the center have been primarily concerned with study of phenomena associated with adaptation of Arctic vertebrates and invertebrates to low temperature. Measurements of the body temperatures, metabolic rates and other observations have been made in a typical variety of Arctic mammals and birds as well as invertebrates, both in the wild state and in captivity. This information constitutes not only a major contribution to basic scientific knowledge of Arctic life, but will serve in providing background data relative to studies of human health in low-temperature environments.

Prolonged studies are also being made of phenomena involved in hibernation, including investigation of seasonal changes in the physical properties of the blood of hibernating mammals, and experiments to determine the specific factors responsible for inducing and terminating hibernation.

Several significant observations have been made during the center's nutritional experiments. Among certain native groups in Alaska the diet consists almost entirely of fish. Experimental studies of the effects of these carbohydrate-free diets indicate an increased requirement for thiamine. Other nutritional investigations have revealed low inorganic iron in the blood sera of native groups examined following repeated reports of anemia among the Eskimos. Results of these blood examinations considered in conjunction with their dietary habits has led to the conclusion that the available iron intake of these groups is only marginal, thus accounting for the widespread moderate anemia.

A special study of food consumption in the Anchorage area, completed in connection with civil defense planning activities, has revealed several interesting deviations from the pattern of the national average. According to this study, meat consumption in Anchorage is 50 percent higher than the national average; consumption of fresh fruits and vegetables is 40 percent lower; and dairy products are substituted to a far greater extent for fresh milk in Alaska.

An important feature of the center is the scientific reference library which has been built up during the past 5 years. As the Territory's only reference library in the medical and biological sciences, the center's collection now serves not only the immediate needs of the staff but is used by scientists and others working in all parts of the Territory.

Mr. BUSBEY. Dr. Haldeman, is there anything in addition to what you have in the statement which you would like to highlight?

Dr. HALDEMAN. No, Mr. Chairman. I think this statement covers the appropriation adequately.

BUDGET REQUEST

Mr. BUSBEY. Your request for fiscal year 1955 is for $1,062,000, a reduction of $20,000 from last year?

Dr. HALDEMAN. That is correct, sir.

Mr. BUSBEY. What did you ask the Bureau of the Budget for?

Dr. HALDEMAN. $1,061,750.

Mr. BUSBEY. So this is $250 more than what you asked the Bureau of the Budget for?

Dr. HALDEMAN. That is right.

STATISTICAL STUDIES

Mr. BUSBEY. Doctor, on page 8 of your statement, you state—

Several statistical studies have been completed, or are nearing completion, in the epidemiological and biometrics branch.

What do those statistics consist of?

Dr. HALDEMAN. One of the studies is related to the incidence of tuberculosis sensitivity among Alaskan groups, Mr. Chairman.

Another study related to the incidence of illness in the Anchorage area in relation to the comparisons with similar types of studies in more temperate climates.

Another study was a study of hospital admissions in Alaska, again aimed at obtaining a better basis for program planning.

Mr. BUSBEY. Do you have a special unit working on these statistics?

Dr. HALDEMAN. At the present time we do not, sir.

Mr. BUSBEY. How many people are used on the statistical work?

Dr. HALDEMAN. At the time those studies were in progress, Mr. Chairman, there was one statistician and a clerk.

Mr. BUSBEY. Of course we appreciate a certain amount of statistics are invaluable, but we don't like to see too much effort being put on statistics if it means neglecting the fundamental work.

STUDIES OF DISTEMPER IN SLED DOGS

I have been looking at this paragraph on page 10.

In addition to studies of parasitic diseases, work is also being carried on concerning the problem of canine distemper among Arctic sled dogs. Control of these costly outbreaks of distemper is essential to the Eskimos, since without this Arctic beast of burden they would frequently face starvation. Once it was determined that the disease found among Arctic dogs was identical with that found in the States, an experimental inoculation program was inaugurated in certain Arctic villages using standard distemper vaccines. The efficacy of last summer's vaccination program at Wainwright was put to a real test by a sudden outbreak of distemper in the village during the past winter. Only one of the vaccinated dogs became ill but recovered with treatment, while 46 dogs, absent from the village at the time of the immunization program, died of the disease. On the basis of this evidence it has been recommended that a territory-wide immunization program be instituted.

I have no quarrel with the program because if we can immunize these dogs, that is fine. But isn't the Public Health Service getting into the field of economic need rather than the public health need of the people?

Dr. HALDEMAN. Mr. Chairman, dogs frequently are involved in diseases transmittible to humans.

In Alaska we have an unusually high incidence of respiratory disease among both adults and children.

When the outbreak occurred originally, of course we did not know what we were dealing with.

Through laboratory work it was established that it was distemper.

Incidentally, this condition in dogs is suspected as being a possible source of pneumonias, particularly in children.

We participated in the initial immunization experiment, and once the efficacy was established we have turned over to other Territorial officials, the Department of Agriculture there, the operation of the immunization program.

I might mention, however, that the Eskimo is quite dependent on the dog, not merely economically but actually for his life because of the necessity for transportation, the way they are dependent in securing their food.

We are not carrying out an immunization program out of funds from this appropriation. That has been taken over by the Department of Agriculture.

Mr. BUSBEY. You answered my next question, which was going to be, why the Department of Agriculture wasn't the proper one to be carrying on this work.

Dr. HALDEMAN. We have tried to be of assistance inasmuch as our center has the only veterinarians in the Territory.

STUDIES OF ANIMAL ADAPTATION TO LOW TEMPERATURES

Mr. BUSBEY. At the bottom of page 10 now, following on with the next paragraph:

> Physiological investigations conducted by the center have been primarily concerned with the study of phenomena associated with the adaptation of Arctic vertebrates and invertebrates to low temperature. Measurements of the body temperatures, metabolic rates, and other observations have been made in a typical variety of Arctic mammals and birds as well as invertebrates, both in the wild state and in captivity. This information constitutes not only a major contribution to basic scientific knowledge of Arctic life, but will serve in providing background data relative to studies of human health in low temperature environments.

Have not the armed services been doing quite a bit of work along that line?

Dr. HALDEMAN. Mr. Chairman, we have worked very closely with the Defense Establishment in planning our studies in relation to the research center.

We, by and large, have attacked problems in relation to their application to a civilian economy, whereas the military naturally concentrates on conditions relating to military situations.

These studies in no way conflict with studies being conducted by the Defense Establishment.

DEFENSE DEPARTMENT RESEARCH IN ARCTIC HEALTH

Mr. BUSBEY. How much is the Defense Department spending on Arctic health research?

Dr. HALDEMAN. That would be a difficult thing to ascertain, Mr. Chairman. As far as operations in Alaska are concerned, they are largely in the form of field parties going to Alaska. The basic work in preparation for the Arctic work is done in the States.

I would not wish to venture a guess as to the total amount of expenditure in research relating to low-temperature environment.

Mr. BUSBEY. Are you familiar with the different types of projects they might be conducting in Alaska?

Dr. HALDEMAN. I wouldn't be personally familiar with all of them. I am generally familiar with the areas in which they are working.

Mr. BUSBEY. What would be some of those areas?

Dr. HALDEMAN. In our environmental sanitation studies we have found quite useful work being conducted by the Army engineers in regard to the construction of runways and buildings on permanently frozen ground particularly.

We are working in the area of the development of economical methods of water supply and waste disposal. But the data which they collect is useful, of course, to us.

They are likewise developing better methods of clothing for use of military personnel. Many of their findings are directly applicable to civilian health.

In the field of insect control they have devoted their attention to large plane spraying operations whereas we have been directing our attention to the development of measures more suitable to the homesteader, small village, and civilian economy.

They are working in various phases of aviation medicine which is quite separate from our type of operation.

Mr. BUSBEY. Is there a certain amount of coordination between the Public Health Service and the military on these various projects?

Dr. HALDEMAN. Yes. There are a number of mechanisms in Alaska which perhaps are not common here.

In the first place the number of scientists working in the area is smaller. We have the only research laboratory in the biological field in Alaska. It is utilized by the Defense Establishment scientists, enabling them to do research without coming to the States.

We have local chapters of the American Society for the Advancement of Science.

Once a year there is an Alaska Science Conference in which all of the workers in the scientific field in Alaska get together to discuss their mutual problems. That was established initially under leadership of the Arctic Health Research Center in order to get all the people together and to discuss their various programs.

In spite of much research which has been done in low temperature areas, not only by our people but by other nations interested in low temperature areas, most of it has been in the physical sciences. Actually so little has been done in the biological sciences that we feel, in a sense, the more people we can get interested the better off we are.

One of the things the center has done has been to give support to universities because of our know-how in low temperature areas. When we can interest a university in using its own funds, we will

assist in selecting a site, and in many ways which make the work of a group from the States easier in performing research in low temperature areas.

STUDIES OF HIBERNATION

Mr. BUSBEY. You refer to studies on hibernation of mammals at the top of page 11. Where does that fit into the Public Health Service's problem of dealing with the health of the people?

Dr. HALDEMAN. The status of our knowledge regarding the effects of cold climate on the physiology of the human individual is very deficient. It is not a subject which has been studied to any extent from the standpoint of obtaining rather fundamental information.

We realize, of course, that man has a limited adaptation in the sense of possibilities of altering his physiology to adapt to cold. There is a certain ability, however.

In order to get at the fundamental changes in physiology, such as in circulation, salt exchange, water balance, your more profitable approach in solving that problem is to select animals for study which do exhibit an adaptation to cold.

You will more readily observe those variations, such as variations in basic metabolic rate, in these animals.

A bear is not a true hibernator such as a ground squirrel, who is able to go into cover and lower his body temperature down to a degree or two above freezing, and exist that way throughout the winter.

However, a bear does have capacity for lowering his temperature considerably, and it is through the study of mechanisms such as this, study of animals with this adaptability, that we obtain some of the answers regarding what fundamental physiological processes are involved in man's adjustment to cold.

Mr. BUSBEY. Mr. Fernandez?

TUBERCULOSIS PROBLEM

Mr. FERNANDEZ. I notice from the justifications that tuberculosis is probably the biggest problem that you have in Alaska.

Dr. HALDEMAN. Tuberculosis certainly would rank right at the top.

Mr. FERNANDEZ. According to the justification sheet on page 6, 181.9 per thousand is the rate of death from tuberculosis alone?

Dr. HALDEMAN. Yes.

Mr. FERNANDEZ. That means the entire population of Alaska, including the natives and non-natives?

Dr. HALDEMAN. Yes.

Mr. FERNANDEZ. Do you have any breakdown as between the natives and non-natives in Alaska?

Dr. HALDEMAN. Yes, sir. The death rate among the white population of Alaska in 1952 was 38 per 100,000, which compares to a death rate in the continental United States of 16 per 100,000 among the white population.

I think that is a lower rate, however, than the true rate since the tendency on the part of Alaskans, who are a transient population, is to come back to their homes in the States when they develop tuberculosis. Therefore, this represents perhaps an inadequate picture so far as the white population is concerned.

The Eskimo, Indian, and Aleut death rate is 600 per 100,000. In some communities it has run as high as 1,000 per 100,000, in other words, 1 death per 100 people per year.

Mr. FERNANDEZ. Your statement indicates, then, that even among the white population the death rate from tuberculosis is much higher than in the United States?

Dr. HALDEMAN. On the average, yes.

Mr. FERNANDEZ. As among the three classes of natives, Indian, Eskimo, and Aleut, is the incidence of the disease more pronounced in any one of them than in the others?

Dr. HALDEMAN. Yes, sir. Rather than being a difference of whether they are one race or the other, it is more a factor of geography. The Kusko, Yukon, Delta region contains the highest amount of tuberculosis in relation to population. There are both Eskimos and Indians in this area.

Mr. FERNANDEZ. Why is that? Is it a colder area? What is the reason for the higher incidence there?

Dr. HALDEMAN. I think it is perhaps associated rather largely with the fact that there is considerable tuberculosis, economic conditions are poor, and these are very marginal areas from the standpoint of diet and the like.

Mr. FERNANDEZ. What connection is there between the incidence of the disease and malnutrition?

Dr. HALDEMAN. I cannot speak as an expert in the field of tuberculosis, Mr. Fernandez. However, I think that generally speaking you have a higher rate of tuberculosis, and an individual is more likely to get tuberculosis, if he is in a household where there are active cases if his general physical condition is poor.

Mr. FERNANDEZ. How is it transmitted?

Dr. HALDEMAN. Tuberculosis is transmitted from person to person directly through the sputum.

Mr. FERNANDEZ. I can understand that with respect to lung disease. But I notice from your statement in the justifications that bone tuberculosis is quite prevalent in Alaska.

Dr. HALDEMAN. Yes; that is quite an interesting picture. It is quite different from what we see in the United States. As a matter of fact, we do not see much bone tuberculosis in the United States.

What we do see is of a bovine type, transmitted from milk.

The tuberculosis in Alaska is not that type. It is the same strain causing tuberculosis of the lung.

There are other differences. It is very frequently associated with pulmonary tuberculosis as contrasted to the bovine type of tuberculosis which sometimes has been felt to immunize a person from pulmonary tuberculosis.

The only assumption can be that the rather massive infection which so many of these youngsters are subjected to results in this unusual incidence of bone tuberculosis.

There would not seem to be evidence, although it has not been a subject which has been studied intensively, that there is a difference in racial pathology.

From observations, we feel that the case of tuberculosis in an Eskimo will respond as well to treatment, and the prognosis is as good, as in a non-Eskimo.

Mr. FERNANDEZ. I don't know as I follow you, that is, what point you are trying to make.

Dr. HALDEMAN. I was merely saying that we do not assume, at least there is no evidence, that there is an increased racial susceptibility on the part of an Eskimo.

COMPARISON OF PREVIOUS YEARS APPROPRIATIONS

Mr. FERNANDEZ. This appropriation was considerably higher in 1949 when it first started, was it not?

Dr. HALDEMAN. The appropriation in 1949 was $1,115,000.

It reached its peak in 1950 with appropriation of $1,317,000.

There were some decreases in 1951 and in 1952.

The 1953 and 1954 appropriations and the 1955 request are essentially at the same level.

Mr. FERNANDEZ. What were the decreases in 1951 and 1952? Do you have them handy?

Dr. HALDEMAN. Yes. A total of $1,317,000 was available in 1950.

In 1951, the appropriation was $1,259,000.

In 1952, the appropriation was $1,229,270.

The 1953, appropriation was $1,100,000.

In 1954, it was $1,082,000.

Our present request is for $1,062,000.

Mr. FERNANDEZ. It was testified last year by Dr. Albrecht that the appropriation from the 80th Congress was $700,000 for grants, that is in round numbers. Last year it was only $540,000. That applies to the Territory, I take it?

Dr. HALDEMAN. Yes.

Mr. FERNANDEZ. Is that where the reductions have been made?

Dr. HALDEMAN. That is substantially correct, sir.

MOBILE HEALTH UNITS

Mr. FERNANDEZ. Involved in that testimony as I recall it were some units, medical units, boats, which went up and down the coast there giving clinical treatment and making clinical analyses for the native people, and which Dr. Albrecht testified would have to be discontinued, and, as a matter of fact, were discontinued at that time. What became of them?

Dr. HALDEMAN. They are still being maintained, at least in drydock. They are not being operated.

Mr. FERNANDEZ. They are still in drydock?

Dr. HALDEMAN. That is right.

Mr. FERNANDEZ. No appropriation was made for that, either, either by the Territorial or the Federal Government, last year?

Dr. HALDEMAN. No, sir. I would like to add, however, that the reductions which Dr. Albrecht referred to relate, of course, to some reductions in our regular grants as well as these. Dr. Albrecht was faced with making certain reductions in his budget, and the decision of where to make the reductions was his. He was faced with a problem of where to cut and he had to establish a priority in accordance with that.

Mr. FERNANDEZ. Was the $540,000 for grants in this appropriation?
Dr. HALDEMAN. That is correct, sir.
Mr. FERNANDEZ. And it is in this appropriation now?
Dr. HALDEMAN. Yes.

OTHER PUBLIC HEALTH GRANTS TO ALASKA

Mr. FERNANDEZ. In addition to that they received grants from the regular appropriations for tuberculosis control?
Dr. HALDEMAN. Yes.
Mr. FERNANDEZ. Since that is being eliminated, almost eliminated right now, what will be the result of that in Alaska?
Dr. HALDEMAN. In fiscal year 1955 Alaska will receive a further reduction of only $22,200 by virtue of the reductions in grants other than this special Alaska grant.
There will be a reduction in tuberculosis control. However, this is partially offset by an increase in the general helath grant which is contained in our 1955 budget request.
Mr. FERNANDEZ. How does that compare with $106,000 which they received in 1950?
Dr. HALDEMAN. In which appropriation, Mr. Fernandez?
Mr. FERNANDEZ. In the other appropriations, the regular appropriations for grants to the States and Territories.
Dr. HALDEMAN. According to my data here, in 1950, from other Public Health Service grant-in-aid appropriations, there was available $233,451, and in the 1955 estimates there will be available $101,900, and a reduction of approximately $130,000.
Mr. FERNANDEZ. Dr. Albrecht last year said—

The Federal tuberculosis control grant which we received, as any other State does, has consistently been going down since 1950. It has dropped from $106,000 to $66,000, being $40,000 a year less than it was in 1950.

That doesn't seem to coincide with the statement you just made.
Dr. HALDEMAN. I think I can clarify that, Mr. Fernandez.
The statement I just made was the total grant, general health, tuberculosis, venereal disease, heart, and cancer. My totals were related to all of those grants.
I do not have here the total amount of tuberculosis grants for each of these years, although I am confident that the figures which you give are correct.
Mr. BUSBEY. Mr. Fernandez, I was wondering if it would not be helpful if we asked Dr. Haldeman to prepare a table showing the Public Health Service grant programs in detail and in total for the 6 years, 1950 to 1955?
Mr. FERNANDEZ. I think that will be very useful.
Mr. BUSBEY. Could you supply that for the record, Doctor?
Dr. HALDEMAN. Very glad to.
(The information requested is as follows:)

Public Health Service funds available to Alaska for fiscal years 1950–54 [1] *and estimated amounts for 1955*

	1950 appropriation	1951 appropriation	1952 appropriation	1953 appropriation	1954 appropriation	Estimated 1955
Control of venereal disease:						
Grants-in-aid	$24,700	$16,400	$15,100	$15,000	0	0
Special projects [3]	1,387	1,925	971	3,391	$1,147	0
Technical assistance	0	0	10,000	13,976	10,700	$8,500
Total	26,087	18,325	26,071	32,367	11,847	8,500
Control of tuberculosis: Grants-in-aid	103,508	87,100	76,700	66,600	50,000	15,900
Assistance to States, general: Grants-in-aid	52,710	50,800	49,000	48,400	37,600	49,600
Grants, water-pollution control	9,212	8,700	7,800	0	0	0
Disease and sanitation investigations and control, Territory of Alaska:						
Grants-in-aid	757,117	694,000	630,000	[2] 537,000	540,000	540,000
Technical assistance	136,828	118,836	132,557	120,488	108,000	102,000
Total	893,945	812,836	762,557	657,488	648,000	642,000
Hospital construction grants	200,000	200,000	200,000	200,000	200,000	200,000
Operating expenses, National Cancer Institute: Grants-in-aid	11,238	10,500	9,900	10,000	7,300	8,100
Mental health activities: Grants-in-aid	20,000	20,000	19,200	19,200	17,700	17,700
Operating expenses, National Heart Institute: Grants-in-aid	10,694	10,500	10,300	10,400	10,300	10,600
Grand total	1,327,394	1,218,761	1,161,528	1,044,455	982,747	952,400

[1] These amounts represent original allocations rather than amounts paid.
[2] These amounts represent final payments.
[3] Represents final payment rather than allotment.

Mr. FERNANDEZ. Did you request an appropriation for the manning of those units which are in drydock?

Dr. HALDEMAN. No, sir; we did not. I might mention that the Governor of Alaska, Governor Heintzelman, has requested a survey of the total health program in Alaska, that of the Alaska Department of Health, with which we are cooperating, as well as that being carried on by the Bureau of Indian Affairs.

This survey is being conducted by the University of Pittsburgh. It will have a number of very eminent persons on it, including Dr. Perkins, president of the National Tuberculosis Association, and we are looking forward to having this evaluation to assist us in arriving, I think, at what an appropriate appropriation level should be.

There has been some discussion of the possibility of additional hospital beds being made available through the utilization of some beds which are surplus to the State of Washington's needs.

If that should develop, that would perhaps alter the situation with regard to the type of case finding activities and follow up activities which are supported by this appropriation.

However, that is still just in the discussion stage.

MOBILITY OF POPULATION

Mr. FERNANDEZ. In your justifications it is stated:

During the peak employment season of 1952 population reached 182,000, an increase of 31.9 percent over the 1950 peak season.

There is still a great deal of employment?

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. People being employed and then coming back to the States and others taking their place.

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. And you state that among the whites the incidence of disease could be higher than you indicated awhile ago but for the fact that a good many of those who have contracted the disease of course go back home to the States.

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. And I suppose that in doing so they continue to bring the disease to the States.

Dr. HALDEMAN. That is correct, sir.

Mr. FERNANDEZ. It seems to me that a good deal more should be done in Alaska, because of its peculiar problem and because of the fact so many other people from here go to that climate, and I think climate has a great deal to do with tuberculosis, and then return to the United States when they spread the disease.

Is any effort being made among the employees to protect them from the disease and prevent them returning to the States with it?

Dr. HALDEMAN. Not other than in the course of the case-finding program, an attempt to discover and to isolate the infectious case in Alaska.

Mr. FERNANDEZ. You told us awhile ago in what part of Alaska tuberculosis was most prevalent. Geographically where is it less prevalent?

Dr. HALDEMAN. Well the lowest prevalence, of course, is in its largest cities with the highest proportion of white population and where there are more white people in relation to the Eskimos, Indians, and Aleuts.

Mr. FERNANDEZ. Eliminating the white population and speaking only generally of the rural population—we will say the native population—is it more prevalent farther north, or more prevalent farther south?

Dr. HALDEMAN. It is more prevalent to the north and west and less prevalent in the panhandle area in the southeast, which is closer to the United States.

Mr. FERNANDEZ. You have no difficulty with the native Indians and Aleuts in having them respond to offers of treatment?

Dr. HALDEMAN. No, they respond very well. As a matter of fact, I was discussing that very point with Dr. Blomquist, medical officer in charge of the Research Center, last week. He indicated that to all intents and purposes we do not have to worry about the Eskimo leaving the hospital against medical advice. Where you have a disease as prevalent as tuberculosis is among Eskimos you find a surprising amount of understanding of the disease. They know the disease better because they see it in their families and in their friends.

MALNUTRITION AMONG THE NATIVES

Mr. FERNANDEZ. Is there a great deal of malnutrition among the Indians and Aleuts?

Dr. HALDEMAN. Yes, sir; particularly in those areas where they are beginning to utilize more of the white man's food. The problem there is the same as any other place in the world where there is a limited amount of money available. They tend, as they transfer into what you might call the white man's economy, to spend their available money for starches, flour, and sugar, and that group nutritionwise is very much poorer than those who are on a complete

Eskimo diet. It is in that transition phase where they are changing their way of living where the poorest nutrition is found.

Mr. FERNANDEZ. Where is malnutrition more pronounced, among the Indians on the mainland or the Aleuts in the islands?

Dr. HALDEMAN. I could not answer that. In my own experience, the greatest amount of malnutrition was seen again in the Yukon-Kuskokwim area where the people are living, you might say, on a very marginal existence with very little chance of earning money and where a lot of their original sources of food are gone. The caribou that used to be a major item of diet has all been killed off and they are subsisting largely on fish, and it is not a good country for that.

METHODS USED TO COMBAT TUBERCULOSIS

Mr. FERNANDEZ. Could you give us very briefly a little outline of how you go about providing treatment for that particular disease or any others in this work, leaving out the matter of statistics and research work of that nature?

Dr. HALDEMAN. In relation to tuberculosis?

Mr. FERNANDEZ. Yes, or other medical work. I suppose it is all correlated and I do not imagine you have them separated as you go along.

Dr. HALDEMAN. Tuberculosis has been singled out because of its importance for somewhat unusual treatment. One of the early activities engaged in with moneys provided by this appropriation was the inauguration of a rather widespread B. C. G. vaccine program, which has been carried out in all of the high-incidence areas of the Territory. In conjunction with it was a more or less intensive casefinding program.

Then there is a joint board which evaluates the cases in terms of need for hospitalization, taking into consideration the economic situation of the family, as well as the suitability of the patient for hospitalization. This is necessary because there are more patients needing hospitalization than there are beds.

Mr. FERNANDEZ. That is too general a statement. What I want is what you do; whether you have certain centers or whether you have medical officers moving about doing that.

Dr. HALDEMAN. Yes. Part of the casefinding was done by the mobile units which you referred to previously.

Mr. FERNANDEZ. But they are tied up, so you could not do it with the mobile units.

Dr. HALDEMAN. The mobile units, it is true, are tied up.

Mr. FEENANDEZ. I am speaking about the present.

Dr. HALDEMAN. At the present time, the casefinding activities are continuing on a rather restricted scale.

Mr. FERNANDEZ. How?

Dr. HALDEMAN. They have a mobile X-ray unit that operates in the so-called railroad belt. They are doing routine X-rays at the Alaska native service hospitals that are operated on the Yukon by the Bureau of Indian Affairs. The Alaska Department of Health has been able to take a reasonable number of X-rays through mobile X-ray equipment which can be flown from place to place.

The Alaska Department of Health has been giving a little higher priority in the last year or two to other aspects of the program than to the tuberculosis casefinding program.

REASONS FOR INACTIVITY OF MOBILE HEALTH UNITS

Mr. FERNANDEZ. What has the Public Health Service done about resolving this matter of these units which are in drydock? They certainly ought not to be there; they either ought to be disposed of, or activated. What have you done about it?

Dr. HALDEMAN. The determination of the program emphasis to be placed on the operation of mobile units, as I indicate, is largely a program decision of the Alaska Department of Health. Within the available funds, it was necessary for them to make some decisions.

Mr. FERNANDEZ. Well, they made the decision they did not have enough money to run them, and they came here last year to Congress and asked us for it. But I am asking what the Public Health Service of the Federal Government is doing. Are you satisfied with the money provided in this budget?

Dr. HALDEMAN. We are, as I indicated, currently studying the situation. We also, as I indicated, are very anxious to have the advice of the team from the University of Pittsburgh that will study the entire health problem. I might say our attitude toward the importance of this has been indicated by the fact that we have maintained our special Alaska appropriation at essentially the same level.

Mr. FERNANDEZ. They have been tied up since October of 1952, as I recall, and I remember a few days ago, with respect to a similar problem appearing before the committee, where again the answer was that the Public Health Service was studying the matter and now here you are studying this one. It won't do any good unless you are actually going to do some work to lick the problem and not merely study it.

Dr. Anderson. The responsibility of the Public Health Service in connection with the health program in Alaska is similar to that, of course, in any other State. And when you speak specifically of mobile units, whether they be trucks, buses, railroad cars, or ships as in this instance, that is the decision of the State or, in this case, the Territorial health authority. And within the available resources and funds, in this case a combination of Federal funds plus whatever Territorial funds can be put into it, the present program is all it can do within their entire program. And Dr. Albrecht and his staff have decided that within the funds made available from special Alaska grants, and the additional grants in this case from the tuberculosis funds they could only do what they finally decided to carry out. And then beyond the financial assistance from direct appropriations, we provide technical assistance in which we consult with them on their problems and assign the personnel as they request according to what we have available.

So it is not for us, it is not our responsibility, to say that they should or should not bring the ships into active service, if they decide they should not do so.

Mr. FERNANDEZ. Your answer is simply that nothing is being done. But I think all of you have a responsibility—the Public Health Service, the Alaska Public Health Service, and the Indian Bureau. It is utterly ridiculous to spend money for units like that and just tie them up. It is just not good business and it does not make good sense.

Now, have you discussed the matter with the Bureau of Indian Affairs and their health setup?

Dr. HALDEMAN. Yes; we have worked very closely with the Bureau of Indian Affairs in relation to this particular problem and also have

participated actively, given active assistance, to a survey of the total problem which they are conducting with moneys made available by the Department of the Interior.

Mr. FERNANDEZ. Have they made any effort or have you asked them to make any effort to utilize those mobile units that are tied up?

Dr. HALDEMAN. The Department of the Interior moneys have been justified and utilized largely for hospitalization; whereas the moneys made available under this appropriation and under the appropriation to the Alaska Department of Health have been utilized for case finding and followup activities. We at all times try to coordinate our program planning with the Department of the Interior. We have had several meetings with them within the last 2 weeks, as a matter of fact, on this very problem of tuberculosis in Alaska.

Mr. FERNANDEZ. Have you discussed this particular matter of utilizing those mobile units? The reason I ask that is this: I was in Alaska with the Coast Guard and I happened to see some of that work, not in connection with the official duties of the committee up there but, because I was interested in Indians I took note of it; and I thought it was wonderful. After all, those mobile units are for the Indians and somebody ought to be using that equipment and continuing that work, or else they will do no good.

Dr. HALDEMANN. Again all I can answer is that within the appropriation we make available the Alaska Department of Health has elected to spend it in certain other activities.

Mr. FERNANDEZ. Well, I do not understand they have elected to spend it in other activities, but there are certain other activities they have to use that money for and what they have decided is that they have not money enough to carry on this work which was started, and as I understand, started with the cooperation, advice and help of the Federal Public Health Service.

Mr. LARMON. Governor Heintzleman called on me day before yesterday and went into the problem and Dr. Albrecht accompanied him and we told them we would be glad to reexamine the situation, having in mind this committee that has been appointed. That was simply day before yesterday.

Mr. FERNANDEZ. Well it deserves more consideration and maybe you will be prepared to make some recommendations later on.

That is all, Mr. Chairman.

DIETARY PROBLEMS

Mr. BUSBEY. Doctor, I was interested in your statement in regard to the transition period of the Eskimo from his regular diet to the white man's diet and the effect it had upon him. Is that more or less generally true where people, not only in Alaska, but in any other sections of the world, who are used to a certain diet for generations and generations and then, because of our going into the area for the first time for military purposes, or any other purpose, get accustomed to certain white man's food and make some attempt to change over to it?

Dr. HALDEMAN. Historically I think it is inevitably part of the changing culture of a primitive people into a modern economy. The natural economy of the Eskimo is one of having very few families grouped together. When the white man came in with his churches

and stores, it tended to encourage the Eskimo to live in villages of even 50 or 100 people and they soon destroyed the economy of the area. Their natural way of living is to move from area to area, and their natural economy is a very good one and they have lived for many years, for centuries, on it. But when we change their economy, like bringing in the large installation at Point Barrow, and we employ them for awhile and then our employment drops, the people are faced with some very real problems. It is not just where we have gone in, however; it is also becoming more common in other areas.

I have watched Alaska now over a period of some 17 years and I see definite trends in many isolated places away from their natural way of life.

Mr. BUSBEY. What are some of the ill effects that they get from this transition to starchy foods?

Dr. HALDEMAN. Well, it is a poorly balanced diet from the standpoint of their basic dietary requirements.

Mr. BUSBEY. Is that change of diet likely to lead to other complications?

Dr. HALDEMAN. That is true. I am not an expert in the field of nutrition; but, generally speaking, poor nutrition is a factor in many conditions.

Mr. BUSBEY. If there are no further questions, thank you very much.

WEDNESDAY, APRIL 28, 1954.

FOREIGN QUARANTINE SERVICE

WITNESSES

DR. CALVIN B. SPENCER, CHIEF, DIVISION OF FOREIGN QUARANTINE

SALARIES AND EXPENSES

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$3,065,000	$2,900,000	$2,900,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		2,100	
Adjusted appropriation or estimate	3,065,000	2,902,100	2,900,000
Unobligated balance, estimated savings	−16,533		
Obligations incurred	3,048,467	2,902,100	2,900,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Medical examination of aliens and quarantine inspection of persons, vessels, and aircraft entering United States ports	$2,253,194	$2,432,100	$2,430,000
2. Medical examinations of visa applicants in foreign countries	333,631	299,000	299,000
3. Administration	171,642	171,000	171,000
Obligations incurred	3,048,467	2,902,100	2,900,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	603	537	537
Full-time equivalent of all other positions	27	25	25
Average number of all employees	562	530	530
Average salaries and grades:			
General schedule grades:			
Average salary	$4,514	$4,623	$4,623
Average grade	GS–6.5	GS–6.6	GS–6.6
Crafts, protective, and custodial grades:			
Average salary	$3,598	$3,395	$3,395
Average grade	CPC–5.7	CPC–5.0	CPC–5.0
Ungraded positions: Average salary	$2,725	$3,497	$3,497
01 Personal services:			
Permanent positions	$2,420,836	$2,349,432	$2,349,432
Other positions	141,197	133,200	133,200
Regular pay in excess of 52-week base	9,050	8,868	8,868
Payment above basic rates	136,893	125,900	125,900
Total personal services	2,707,976	2,617,400	2,617,400
02 Travel	45,743	45,700	45,700
03 Transportation of things	33,953	28,110	28,110
04 Communication services	17,966	20,050	20,050
05 Rents and utility services	36,768	36,700	36,700
06 Printing and reproduction	7,106	3,100	3,100
07 Other contractual services	73,039	56,550	56,550
08 Supplies and materials	115,129	103,900	103,900
09 Equipment	43,813	25,600	23,500
13 Refunds, awards, and indemnities	1,591		
15 Taxes and assessments	2,383	1,990	1,990
Subtotal	3,085,467	2,939,100	2,937,000
Deduct charges for quarters and subsistence	37,000	37,000	37,000
Obligations incurred	3,048,467	2,902,100	2,900,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$274,126	$235,040	$225,140
Obligations incurred during the year	3,048,467	2,902,100	2,900,000
	3,322,593	3,137,140	3,125,140
Deduct:			
Adjustment in obligations of prior years	15,960		
Obligated balance carried to certified claims account	5,213		
Unliquidated obligations, end of year	235,040	225,140	225,140
Total expenditures	3,066,380	2,912,000	2,900,000
Expenditures are distributed as follows:			
Out of current authorizations	2,815,464	2,696,960	2,715,000
Out of prior authorizations	250,916	215,040	185,000

Mr. BUSBEY. The committee will come to order.

The committee has for consideration first this morning the appropriation request for the Foreign Quarantine Service of the United States Public Health Service. Doctor Spencer is before the committee to justify that appropriation request.

GENERAL STATEMENT

Doctor, your statement will be put in at the beginning of your testimony.

(The statement referred to is as follows:)

Mr. Chairman and members of the committee, the appropriation estimate of $2,900,000 which is presented here is to provide for the opeartions of the Division of Foreign Quarantine for the fiscal year beginning July 1, 1954. This amount

represents no increase over the current fiscal year and reflects a curtailment of $165,000 below the fiscal year which ended June 30, 1953.

The appropriation is utilized for two main purposes: (1) The quarantine measures intended to prevent the introduction into the United States of the quarantinable diseases and other dangerous contagious diseases. The basic preventive measures involve inspections at ports of entry of persons, planes, vessels, and other possible vectors of disease, such as birds, animals, lather brushes, cultures, infected materials and dead bodies. (2) The medical examination of aliens which is carried out at designated consulates in foreign countries and at ports and airports of entry. The purpose of this function is to prevent mentally or physically defective immigrants and alien visitors from entering the United States, which, if not excluded would add tremendously to our burden of disease control and institutional support.

The Congress first recognized the need for Federal quarantine in 1878. Later, in 1893, our organic quarantine law was enacted, and this law is the basis of our present national quarantine system. Since that year, various statutes and amendments to the regulations have served to mold the maritime quarantine practice into its present efficiency.

For many years in the early days of our country's history the quarantine authority rested primarily in the hands of State and local governments. By the time of the Civil War, most of the important United States ports had some sort of quarantine measures in force. These suffered the serious defect of lack of uniformity, not only with respect to methods of enforcement but in the determination of which contagious diseases were to be controlled.

The first Federal quarantine legislation concerned itself only with aid to the States in the enforcement of their own quarantine regulations. The Federal acts of 1878 and 1893 recognized maritime quarantine as a national rather than a State responsibility and authorized both the acquisition of local quarantine properties and the assumption of legal functions.

It had become apparent to the Congress that no one State could adequately protect itself against diseases which might enter the country through ports in neighboring States; nor could a given State be required to set up machinery to protect all other States. In 1926, the Quarantine Act was extended to cover airplanes as well as ships.

Our responsibility for medical examination of aliens dates back to 1891. Authority for this work is now contained in section 325 of the Public Health Service Act of July 1, 1944, 78th Congress. The Immigration and Nationality Act of 1952 provides for exclusion of aliens with serious mental disorders, tuberculosis, or other dangerous contagious diseases, or physical defects that may affect the ability to earn a living. Such conditions must be excluded when certified by the medical officer to the consular or immigration officials.

Assignments of medical officers of the Service are made to the United States consulates that process large numbers of applicants for immigration visas. At other consulates prospective immigrants are examined by local physicians who are guided in their interpretations by PHS regulations and instructions. All aliens arriving in the United States—immigrants and visitors alike—are subject to medical inspection by quarantine officers, to assist in the determination of admissibility. Aliens with signs of serious illness are sent to a Public Health Service hospital for intensive examination.

The gradual upward trend of the volume of work performed under this appropriation, indicated for the fiscal years 1952 and 1953, is being borne out by an analysis of the estimated trend through the fiscal year 1954 based on an average increase for the preceding 4 years.

The estimated workload figures for 1954 compared with the actual figures for 1953, indicate a continuing and significant upward trend—as follows:

Aircraft arrivals from 47,902 to 49,900.
Persons inspected for quarantine, 39,835,127 to 42,275,700.
Medical examination of aliens at ports of entry, 1,609,655 to 1,679,400.
Medical examination of visa applicants abroad, 121,075 to 129,000.
Vaccinations, 262,799 to 276,644.
Vessel arrivals from 27,524 to 28,800.

We desire to record grave doubts as to the possibility of effectively carrying out a protective quarantine program in the face of certain factors over which management skills can exercise no control.

(1) The Foreign Quarantine Service has used every approach to economy in order to meet the repetitive curtailment of available funds only to be met by an

impact of more planes, increased immigration, and accelerated international travel as reflected in more quarantine inspections and treatments, more vaccinations, and more examinations of aliens seeking visas to come to the United States. Every major factor with which quarantine is concerned has shown a gradual but persistent increase during the past decade while the personnel performing this work has undergone a marked reduction. The average employment for the years 1951, 1952, and 1953 was 619, 579, and 562; the estimated average employment for 1954 and 1955 is 530.

(2) Where study of port conditions revealed possible program revision, a shift was made to dockside boarding resulting in the release of launches and launch personnel, thus effecting a considerable saving to meet the reduction in appropriation. This has resulted in greater travel by our inspection personnel. It has stressed the need for cars for land transportation and has added many manhours of regular duty as well as overtime. During the fiscal years 1950–54, 22 launches, which cost $394,544 to build, have been decommissioned. During the same period, the number of automobiles was increased from 83 to 89. The discontinuation of water transportation exceeding a value of $394,000, must be compared with additional land transportation valued at $8,400. It will not be possible to hold a fixed automobile census if the policy of going to dockside boarding, where practicable, is to be used.

(3) The expansion of international air traffic with its justifiable demand for 24-hour coverage each day, has imposed a responsibility on this program of providing for increased inspectional personnel and overtime duty which cannot properly be discharged.

While the United States has been practically free of the dreaded quarantinable diseases during the recent past, this fact should indicate the effectiveness of quarantine control measures employed rather than a need for their relaxation. At this point it would seem proper to discuss world prevalence of disease and the implied hazard to the United States by international traffic.

A little over half a century ago plague originating in China traveled from port to port through the entire world, leaving between 15 and 20 million deaths in its wake and causing untold economic losses. In the United States, San Francisco, Seattle, Los Angeles, and New Orleans became infected in turn. It took years of effort and millions of dollars to free these ports from plague, and a residue remains in the guise of plague infection among wild rodents in most of our Western States. By concerted efforts of the quarantine and port-health services of all civilized countries plague has at last been banned from the shipping lanes. The control, mainly effected through regular deratting of ships, has now been completely successful for 5 years, and it is essential that the United States should continue to do its share in rendering any transmission of plague by sea or by air permanently impossible.

The control of international transmission of smallpox is less advanced. An enormous reservoir of infection still exists in Asia, Africa, and parts of South America. In Asia alone there has been some 200,000 to 300,000 smallpox cases annually outside of China in recent years, and 56 ports were smallpox infected during the first half of 1953. There were some 42,000 reported smallpox cases in Africa and some 8,000 in Latin America last year, representing only a fraction of the cases actually occurring. Both England and France were invaded by smallpox last year and there have been several other outbreaks in recent years in Europe due to imported infection.

While a number of cases of suspected smallpox were reported by State health officers in the past fiscal year, none have been confirmed, and the United States is therefore now presumably free from smallpox. The state of vaccination of the general population is far from being adequate, however, and a calamity could ensue should the infection be imported. Each time smallpox has been imported it has cost several millions of dollars to wipe out. Daily reports are received by air from smallpox infected areas, and the utmost vigilance at entry points is obviously necessary.

Yellow fever has in recent years pushed northward from its reservoir in equatorial South America. It has now reached the border between Nicaragua and Honduras. There are also indications that the infection may exist among monkeys in the southern states of Mexico. The high incidence of the yellow fever mosquito, *Aedes aegypti*, in Southern and Gulf States even during the winter season renders that area receptive to new invasions of this dreaded disease. Vigilance at southern airports is indispensable for protection.

Cholera is now in a highly epidemic state in southern India, and scheduled flights arrive currently from cholera infected Bombay. Typhus, although pres-

ently not in an epidemic state anywhere, still persists in many parts of Latin America, Africa, and Asia.

Many other infectious diseases have been reduced in the United States through long and costly efforts. Among these, syphilis stands out boldly. As the incidence at home declines from year to year the contacts can more readily be traced, and it is noted that a growing part of the new infection is due to cases imported by seamen. This is a Public Health Service responsibility. Japanese *B. encephalitis* constitutes a menace to the islands in the Pacific as well as to the Pacific Coast States. Psittacine birds present another problem, and anthrax a very serious one. Last year, anthrax imported with bonemeal caused extensive damage to livestock as well as human cases in the Middle West.

The time has not been reached when foreign quarantine can be dispensed with. On the contrary, the increased speed of carriers brings dangerous diseases constantly closer to United States ports of entry. The Quarantine Division is better prepared to meet the menace than years ago. Better insecticides and vaccines are available and better information of the incidence of dangerous diseases abroad is provided through the epidemiological intelligence network of the World Health Organization. An adequate quarantine service must, nevertheless, be ready to act upon this information and use the appropriate means of protection. Otherwise these improvements would be useless. The Division of Foreign Quarantine must collaborate effectively through the established channels with the foreign health services engaged in similar work in order to improve the protection against disease afforded to United States citizens traveling abroad, at the same time minimizing requirements which they may encounter at foreign frontiers.

In summary it is stated that no increase in funds is requested for 1955 as compared with the current year, and, to repeat, the funds for the current year are $165,000 below the preceding year. The workload items which register the impact of international travel and commerce are steadily and incessantly increasing. The average employment for 1955 is estimated at 530, while the average for the past 5 years has been 617.

With the present trend of world prevalence of diseases, the improvement in epidemiological reporting, and the advantage of careful training and long experience of the quarantine inspectional staff, it may be possible to maintain a minimal line of defense against the importation of quarantinable diseases for the ensuing period.

Mr. BUSBEY. Is there anything you want to mention, that is not in your prepared statement, which has come up since the statement was prepared?

Dr. SPENCER. Mr. Chairman, the statement is quite explanatory I should say, very completely so. It highlights our particular problem of the moment which is continuing, that of increased transportation on a worldwide scale, with new services instituted by aircraft and shipping companies.

It also states there that the epidemiological question is the same in that the epidemic diseases maintain approximately their same general prevalence areas and, smallpox being of its usual nature, seems to be able to break away and produce new outbreaks along the lines of commerce, with frequent dire effects.

One that is not stated here, we might mention as an illustration, is that there was an outbreak in The Hague, which, instead of having its original focus in the Far East, came from South America by deviation. We would expect the European outbreaks to be of an origin in the Far East. This one came from South America.

The march of yellow fever north continues into Central America, and that must be carefully watched as one of our problems.

We have made quite some adjustments during the past year, changing over in some particular stations to dockside boarding, where it was indicated and where particular local conditions could permit such a thing.

That, I think, has been accomplished about as far as we can go considering all of the circumstances at the different ports.

We have taken advantage of streamlining our personnel during this same adjustment, getting rid of expensive floating equipment and converting some classes of personnel into inspectional types which we really need in a great way.

Other than that I do not think I could amplify this very much. These are just highlights of what is not there in detail.

Mr. BUSBEY. The request that you are supporting is for $2,900,000, which is the same amount as last year?

Dr. SPENCER. That is correct, sir.

WORKLOAD STATISTICS

Mr. BUSBEY. Doctor, I wonder if you would supply for the record at this point a table showing the 5-year workload of the Quarantine Service?

Dr. SPENCER. We will be very happy to do so, sir.

(The information requested is as follows:)

Foreign Quarantine Service—5-year work trend of important factors

	1951	1952	1953	1954 estimate [1]	1955 estimate [1]
Quarantine inspections:					
Vessels inspected	25,343	29,728	27,524	28,800	29,700
Persons on vessels inspected	1,509,045	1,875,531	1,971,203	2,084,400	2,228,300
Airplanes inspected	43,036	45,638	47,902	49,900	51,600
Persons on airplanes inspected	616,515	703,175	791,721	860,300	921,300
Mexican border inspections	29,569,836	33,353,409	37,072,203	39,331,000	41,771,200
Persons treated	315,912	432,719	412,887	438,200	465,600
Immigration medical examination:					
Examination of aliens (United States ports and airports)	[2] 1,428,639	[2] 1,633,706	1,609,655	1,679,400	1,742,100
Medical certifications	[2] 50,622	[2] 50,257	28,810	30,100	31,200
Visa applicants examined (abroad)	81,206	112,928	121,075	129,000	141,000
Visa applicant medical notifications (abroad)	23,664	33,739	34,913	37,200	40,600
Personnel:					
Budgeted positions	623	603	603	537	537
Average employment	619	579	562	530	530

[1] Estimated on the basis of the average increased workload for the preceding 4 years.
[2] Contain displaced persons arriving at United States ports and airports of entry.

DOUBT AS TO ADEQUACY OF FACILITIES

Mr. BUSBEY. At the bottom of page 3 of your statement you state:

> We desire to record grave doubts as to the possibility of effectively carrying out a protective quarantine program in the face of certain factors over which management skills can exercise no control.

What does that mean, Doctor? What did you have in mind there?

Dr. SPENCER. Well, there are certain factors epidemiologically which we must all recognize, over which with the type of personnel we are using, and even with the type of personnel we are using, who are experienced, well trained, it would mean that in certain periods of the incubation of the disease coming to our ports or airports of entry, as it is likely to do in an unrecognized state, might get by us and produce for the moment a focus of the infection for which we would have no absolute way of arresting it at the time it passed through these airports or ports.

For instance, the incubation period of yellow fever is 6 days. We have it in Central America, close by. We have a broad receptive area in the South, the *Aedes egypti* mosquito, which is not well controlled, and a large nonimmune population.

Travel time by air from Central America up is less than 1 day. With an incubation period of 6 days a person could be infected in the jungles of Central America or some place where it is prevalent or even in South America and be brought in still within that unrecognized period.

Smallpox is the same thing.

So with, let us say, the rather limited personnel which we have, a little over 500 today, while it is a hard core nucleus which could move rapidly into a situation if it develops, it would be utterly impossible for us to stop these things at the time they come through if they are in the incubation period.

ADEQUACY OF FACILITIES FOR PAST YEAR

Mr. BUSBEY. Regarding these grave doubts as to the possibility of effectively carrying out a protective quarantine program, has anything unusually bad happened during the past year?

Dr. SPENCER. We had two separate reports of suspected smallpox in persons coming out of Mexico which fortunately developed not to be real smallpox but seemingly it was aggravated chickenpox in the adult.

We have had no adverse things happen, fortunately.

This highlighted on the basis that we would hope our present personnel, hard-core nucleus of personnel to which I referred, would not be forced lower than its present level in order to maintain a minimum standard of the quarantine inspection at the present time.

Mr. BUSBEY. I am still not quite clear as to these grave doubts you express in your statement.

Dr. SPENCER. I highlighted the reasons for this statement in the way of epidemiological factors, sir.

SIZE OF STAFF

Mr. BUSBEY. Do the grave doubts you express have to do with the present level of personnel?

Dr. SPENCER. Grave doubts would be something like this: The history of the Division over the past several years has been a drop in personnel, and this last year we have dropped from over 600 to down near 500.

The traffic increasing as it is it would indicate that we need them to swing the classifications wherever we can, make adjustment in personnel, and, if possible, pick up a little bit in order to make coverage in these points.

Mr. BUSBEY. In that drop in personnel you speak of, there has not been any drop in commissioned officers who receive $10,000 a year or more. Is that right?

Dr. SPENCER. No, sir. It has been in supplemental inspectional personnel.

Mr. BUSBEY. I notice from the records there are 16 commissioned officers in the $10,000-per-year class.

Dr. SPENCER. That is correct.

Mr. BUSBEY. That compares with 15 in the year of 1951.

Dr. SPENCER. However, they were the directional personnel, Mr. Chairman, whereas we need workers to support those men, as you might expect.

EXCHANGE OF LAND AT MARCUS HOOK

Mr. BUSBEY. Tell us about the Marcus Hook station situation which we discussed last year.

Dr. SPENCER. I think I indicated at that time that we were negotiating with Sun Oil Co., and that it appeared there might be some authorization with Public Buildings Service which would provide a transfer if we reached agreement as to the exchange.

However, it was determined that the authorization was not there and that a bill was introduced and passed through the Congress permitting this exchange on the basis that if the agreement was reached the exchange could be made.

I have an appointment this afternoon with Mr. Givens of the Sun Oil Co., to discuss that very problem.

Mr. BUSBEY. Off the record.

(Discussion held off the record.)

Mr. BUSBEY. That is all, Dr. Spencer.

THURSDAY, APRIL 29, 1954.

RETIRED PAY OF COMMISSIONED OFFICERS

WITNESS

ROY L. HARLOW, CHIEF FINANCE OFFICER

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$1,186,000	$1,197,000	$1,141,000
Prior year balance available		94,190	144,000
Total available for obligation	1,186,000	1,291,190	1,285,000
Balance available in subsequent year	−94,190	−144,000	
Obligations incurred	1,091,810	1,147,190	1,285,000

Obligations by activities

Retired pay of commissioned officers and survivors' benefits:	
1953	$1,091,810
1954	1,147,190
1955	1,285,000

Obligations by objects

12	Pensions, annuities, and insurance claims:	
	1953	$1,091,810
	1954	1,147,190
	1955	1,285,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year		$7,065	$7,000
Obligations incurred during the year	$1,091,810	1,147,190	1,285,000
	1,091,810	1,154,255	1,292,000
Deduct unliquidated obligations, end of year	7,065	7,000	7,000
Total expenditures	1,084,745	1,147,255	1,285,000
Expenditures are distributed as follows:			
Out of current authorizations	1,084,745	1,046,000	1,134,000
Out of prior authorizations		101,255	151,000

Mr. BUSBEY. The first item for consideration this morning is the budget request for retired pay of commissioned officers and I assume our good friend of many years standing, the Chief Finance Officer of the Public Health Service, Mr. Harlow, will justify that.

Mr. HARLOW. I have some remarks I can make about it, Mr. Chairman. It is a little difficult to justify because of the uncertainties involved.

GENERAL STATEMENT

Mr. BUSBEY. We will place your statement in the record and then will be glad to hear any remarks you may wish to make.

Mr. Chairman and members of the committee, this is an estimate for retired pay of commissioned officers of the Public Health Service. The commissioned corps of the Public Health Service is a group similar to the commissioned corps of the Army and its members receive the same pay and allowances as officers in corresponding ranks in the Army. However, retired pay is governed by retirement provisions of the Public Health Service Act.

Officers go on the retired list because of age, disability, or after specified periods of active service. In addition, Public Law 239, 83d Congress, provides for annuities to survivors if an officer elects to take reduced annuity. This is a new provision and we do not know what the effect of it will be as officers now on the retired list have until November 1, 1954, to make an election.

This is a difficult item to estimate. We must calculate on six factors—age, disability, optional retirement, reduced annuities, deaths, and survivors annuities. Age retirements can be determined definitely; the other five factors are indefinite. The total number of annuitants is so small that averages do not mean much.

In arriving at this estimate we made our calculations on the following facts and suppositions:

Dec. 1, 1953, number on retired list	230
Additional retirements to June 30, 1954	11
Retirements, fiscal year 1955:	
Disability	14
Age	6
Optional	12
	273
Deaths	5
Retired list June 30, 1955	268

The only factors we are sure of are the retired list on December 1, 1953, and the six who will reach compulsory retirement age, and there is always the possibility that some of the latter group may die before retirement.

The appropriation language proposes to establish this as a fiscal year account. Heretofore it has been a no-year account and we could use any balance brought forward from a previous year. I understand the change has been proposed because the Armed Forces and Coast Guard retirement accounts are carried in fiscal year appropriations. Although I do not request that the appropriation be con-

tinued as a no-year account, I do want to point out that the other organizations referred to have much larger numbers to deal with and may, therefore, be able to use averages to better advantage. We have a much larger number of officers eligible for optional retirement than we have calculated in this estimate. If many of them exercise their options we will have a deficiency in this appropriation.

NEW LEGISLATION

Mr. HARLOW. Mr. Chairman, the only new legislation which has affected this item since we last met is one which gives retired officers the privilege of making one or more elections to accept reduced retirement benefits in return for survivorship annuities to their dependents.

The deductions from the retired pay of the officers are made on the basis of actuarial tables which provide for a different deduction under a different set of circumstances, depending upon the option that the officer elects.

Officers now on the retired list have until November 1, 1954, to make the election.

Mr. BUSBEY. How will that affect the estimates, Mr. Harlow?

Mr. HARLOW. It does not affect the estimates, because we did not make any calculations on the basis of this law in our estimates, because we had no idea and did not want to guess what effect it might have. Since the deductions are made on an actuarial basis, one would assume the net effect, certainly over a period of years, on the appropriation would be nil. I have this opinion, however, that the immediate effect of the law is that officers who have eligibility for retirement under the 30-year provision are more apt to elect to retire than they would have been previously, because a man has to be on the retired list before any of these benefits can accrue to his dependents, and an officer with 30 years' service may think very seriously of that particular situation. If he remains on the active list and takes a chance on dying before he retires, his dependents will get no benefit from this particular law.

Mr. BUSBEY. Your estimate, in the budget, is $1,141,000, which is $56,000 less than the 1954 appropriation.

Mr. HARLOW. Yes, sir.

ADVANTAGES OF AN INDEFINITE APPROPRIATION

Mr. BUSBEY. Is there any administrative control whatosever that you can exercise over these funds?

Mr. HARLOW. No, sir.

Mr. BUSBEY. What would be the advantages or disadvantages in making this appropriation an open-end appropriation?

Mr. HARLOW. The advantages, as I see them, would be to the extent that if we miscalculated and have a balance at the end of the year it is only necessary that we come to you in the succeeding year for a sufficient amount to make up the difference between our estimated expenditures for the whole year and the balance that remains from the preceding year.

If there is a disadvantage, it lies in the fact that since we do have very little in the way of administrative control over the item, or none, conceivably under a set of circumstances such as I have just mentioned where more officers retire than we had calculated, we would be compelled to come in at some time near the close of the

fiscal year for a deficiency estimate. That makes more work for everybody and accomplishes nothing.

Mr. BUSBEY. That does not happen very often, though?

Mr. HARLOW. It has not happened so far in this appropriation. As a matter of fact, we have always had more balance at the end of the year than we calculated in the beginning.

I have no particular objection to either procedure. It is entirely a matter of budget policy, and the budget policy as reflected in our estimate here is to ask for an annual appropriation, because, for one reason, that is done in some of the other groups.

COMMISSIONED OFFICER GRADE STRUCTURE

Mr. BUSBEY. Did you have a further statement you wanted to make in regard to the grade structure in the commissioned officer corps?

Mr. HARLOW. Yes, Mr. Chairman. I would like to present to the committee, to be included in the record if you see fit, a statement which gives some of the factors which have contributed to the gradual increase in the number of higher grade officers in the Public Health Service commissioned corps. You have mentioned that in connection with some of our appropriation items.

Mr. BUSBEY. I might say I have mentioned that in connection with several appropriation items, not only the ones on which you have been before the committee. I was not referring particularly to any unit in the Public Health Service. I think a statement like the one you have prepared would be very helpful to the committee.

Mr. HARLOW. Thank you very much.

Mr. BUSBEY. It will be inserted in the record at this point.

(The statement above referred to is as follows:)

FACTORS CONTRIBUTING TO HIGHER GRADES IN THE PUBLIC HEALTH SERVICE

Since 1952 a number of factors have worked to effect a steady upward trend toward higher grade levels in contrast to operating from a broad base composed of large numbers of junior-grade officers.

A. EFFECT OF WAR YEARS

In the years 1941 through 1945 the number of officers in the corps increased from 768 to 3,135. While many of these officers have left, a large proportion remain and they are now getting to the point where through normal promotion they are entering some of the more advanced grades.

B. PROGRAM CHANGES

Recent program cutbacks and reductions in the number of physicians and other professionally trained personnel have resulted in the elimination of younger and less experienced officers for the most part. For example, where a hospital has been converted to an outpatient clinic, it has been necessary to use more experienced and therefore higher grade officers who can function with a minimum of supervision and render top-flight service.

C. REDUCTION OF INTERNSHIPS AND RESIDENCIES

The reduction in the intern and resident programs of the Public Health Service has also required an increase in the number of higher grade officers. The reduction of such trainee officers in the lower grade is not accompanied by a parallel decrease in the overall medical workload. This has the effect of requiring the employment of a smaller number of fully trained physicians who qualify for higher grades.

For several years prior to 1952, medical students in their junior and senior years were selectively recruited for summer employment and were granted commissions as junior-grade sanitarians to work in the field of public health, and in research laboratories.

Beginning in 1952, the number of opportunities for utilizing these young men in summer employment began to decline and to expedite the machinery of the summer student program, the Service changed over to using the civil-service system for employing summer students. Thus, the number of junior-grade appointments into the corps was proportionately reduced.

D. REIMBURSABLE DETAILS

Assignment of officers to other Government departments generally require trained and experienced officers in the higher grades to perform planning and administrative functions. Outstanding examples of these programs are the Federal Civil Defense Administration, Foreign Operations Administration, Bureau of Indian Affairs, and Bureau of Prisons. At present 385 officers are assigned on reimbursable detail. In the main, these officers occupy higher grades. For example, of the 385 officers on reimbursable detail, 76 are in the director grade.

E. CLINICAL CENTER

The opening of the Clinical Center requires that positions be filled at levels commensurate with the responsibilities involved.

F. DOCTOR-DENTIST DRAFT ACT

Under the Doctor-Dentist Draft Act the Service is required to commission its draft-eligible candidates in the highest grade for which they qualify. Currently most of the very young men have fulfilled their obligation and are now being replaced by older men. Being older and more experienced, the group from which we are and will be recruiting are qualified for appointment in relatively higher grades.

As priority groups II and III were called up under the Selective Service System, men who entered the Service from those priority groups were generally older and had more experience and training than men in priority group I. As a result of having more training and experience, many men in priority groups II and III qualified for commissions in higher grades. In addition, a number of men in priority group IV came into the Service in advance of any callup of priority group IV. These men qualified for senior assistant or full grade, and as required, were appointed at the grade for which they qualified.

G. MORE HIGHLY QUALIFIED CANDIDATES

A long-range trend over which the Service has no control is continuing to operate to bring into the Service physicians who qualify at higher grade levels than was formerly the case. Only a few years ago physicians were considered fully qualified within 5 or 6 years after high school. Now the majority of physicians entering the Service have a full 4 years premedical course and 4 years in medical school. In addition it is becoming more and more common for them to have had 5 or more years of postgraduate training including internships and residencies. During the last decade the proportion of physicians who go into specialties has increased greatly. The additional training possessed by candidates makes it necessary that they be commissioned at higher grades at time of entry into the Service and that highly qualified physicians be more rapidly promoted than was true in years past in order to compete with a tight labor market.

H. GREATER GENERAL UTILIZATION OF MEDICAL SERVICES

Widespread health education of the American people and an aging population have served to create greater demand for all types of medical services. This demand has heightened competition and has raised incomes outside Government employment to the point that competent personnel are unwilling to remain in the Service unless promotions occur more rapidly than was the case in years past. The signifiance of this situation was recognized by the authorization of temporary promotions (with the combined strength of Regular and Reserve Corps) under Public Law 425 of the 80th Congress, approved February 28, 1948.

I. PENDING DEMANDS

Particular attention is called to the fact that there is a need for 265 officers in addition to the 2,533 actually on duty, making a total of 2,798. Of these, 244 are for additional positions on a reimbursable basis in other departments and 21 are for the Clinical Center.

There are already 385 officers on reimbursable detail to other Government agencies. The 244 additional positions will be paid for by the Foreign Operations Administration, the State Department (refugee relief), the Bureau of Indian Affairs, and the Federal Civil Defense Administration. These reimbursable positions generally require officers of high grades. Of the additional positions, some will be filled by recruitment from the outside, generally in the Reserve Corps, and some will be filled by transfer of officers from regular Public Health Service programs. Replacement will have to be made for officers transferred from the regular programs.

In the event that any of the programs which require officers on reimbursable detail are terminated, Reserve Corps officers would be separated and Regular Corps officers would displace Reserve Corps officers on regular Public Health Service programs. In some of the latter cases this would also result in a downgrading if the Regular Corps officer is holding a promotion in a graded position in the reimbursable detail.

SALARIES AND EXPENSES, PUBLIC HEALTH SERVICE

WITNESSES

ROY L. HARLOW, CHIEF FINANCE OFFICER
DR. LEONARD A. SCHEELE, SURGEON GENERAL
DR. W. PALMER DEARING, DEPUTY SURGEON GENERAL
JAMES F. KELLY, BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$3,170,250	$2,900,000	$2,780,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		35,000	
Transferred to "Assistance to States, general, Public Health Service," pursuant to Public Law 410		−120,000	
Adjusted appropriation or estimate	3,170,250	2,815,000	2,780,000
Reimbursements from other accounts	467,679	222,779	212,538
Total available for obligation	3,637,929	3,037,779	2,992,538
Unobligated balance, estimated savings	−6,366		
Obligations incurred	3,631,563	3,037,779	2,992,538
Comparative transfer from—			
"Control of venereal diseases, Public Health Service"	73,251		
"Control of tuberculosis, Public Health Service"	17,633		
"Control of communicable diseases, Public Health Service"	14,694		
Comparative transfer to—			
"Hospitals and medical care, Public Health Service"	−109,747		
"Salaries and expenses, Office of the Secretary of Health, Education, and Welfare"	−39,902		
Total obligations	3,587,492	3,037,779	2,992,538

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct Obligations			
1. Public-health methods and reports	$524,461	$480,000	$465,000
2. Management and central services	2,458,971	2,335,000	2,315,000
3. International health activities	136,381		
Total direct obligations	3,119,813	2,815,000	2,780,000
Obligations Payable Out of Reimbursements From Other Accounts			
1. Public-health methods and reports	13,162	9,727	
2. Management and central services	3,623	514	
4. Reimbursable details of commissioned officers	450,894	212,538	212,538
Total obligations payable out of reimbursements from other accounts	467,679	222,779	212,538
Total obligations	3,587,492	3,037,779	2,992,538

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	614	499	494
Full-time equivalent of all other positions	9	3	1
Average number of all employees	572	475	468
Average salaries and grades:			
General schedule grades:			
Average salary	$4,741	$4,904	$4,891
Average grade	GS–6.8	GS–7.0	GS–6.9
Personal service obligations:			
Permanent positions	$3,038,155	$2,519,224	$2,489,624
Other positions	59,173	13,829	3,588
Regular pay in excess of 52-week base	12,914	8,586	8,586
Payment above basic rates	14,602	5,000	5,000
Total personal service obligations	3,124,844	2,546,639	2,506,798
Direct Obligations			
01 Personal services	2,662,426	2,326,500	2,296,900
02 Travel	48,776	48,400	48,400
03 Transportation of things	4,192	3,600	3,600
04 Communication services	105,192	138,400	133,000
05 Rents and utility services	1,632	1,600	1,600
06 Printing and reproduction	134,576	131,850	131,850
07 Other contractual services	107,982	117,500	117,500
08 Supplies and materials	28,852	25,150	25,150
09 Equipment	22,508	19,000	19,000
13 Refunds, awards, and indemnities	53		
15 Taxes and assessments	3,624	3,000	3,000
Total direct obligations	3,119,813	2,815,000	2,780,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	462,418	220,139	209,898
02 Travel	1,508	640	640
03 Transportation of things	3,753	2,000	2,000
Total obligations payable out of reimbursements from other accounts	467,679	222,779	212,538
Total obligations	3,587,492	3,037,779	2,992,538

Analysis of expenditures

	1952 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$383,247	$81,541	$66,541
Obligations incurred during the year	3,631,563	3,037,779	2,992,538
	4,014,810	3,119,320	3,059,079
Deduct:			
Adjustment in obligations of prior years	108,263		
Reimbursements	467,679	222,779	212,538
Obligated balance carried to certified claims account	3,304		
Unliquidated obligations, end of year	81,541	66,541	66,541
Total expenditures	3,354,023	2,830,000	2,780,000
Expenditures are distributed as follows:			
Out of current authorizations	3,090,879	2,750,000	2,720,000
Out of prior authorizations	263,144	80,000	60,000

Mr. BUSBEY. The next item for consideration is salaries and expenses, Public Health Service. We will insert Mr. Harlow's prepared statement in the record at this point.

GENERAL STATEMENT

Mr. Chairman and members of the committee, a statement of comparable amounts for 1954 and 1955 under this appropriation title is as follows:

	1954	1955
Appropriation or estimate	$2,900,000	$2,780,000
Less transfer out	−120,000	
Plus transfer in	+35,000	
Comparable totals	2,815,000	2,780,000

The transfer out of $120,000 is the amount provided in 1954 for the Division of International Health activities which has been transferred to another appropriation.

The transfer in of $35,000 is the cost in 1954 of penalty mail which was transferred from another appropriation.

The reduction of $35,000 in the estimate for 1955 amounts to a requirement that the entire cost of penalty mail be absorbed. This will be accomplished by dropping 5 positions to save $29,600 and reducing by $5,400 the total expenditures for communication services.

As now submitted this appropriation provides for two functions of the Public Health Service, namely:

	1954	1955
Public health methods and reports	$480,000	$465,000
Management and central services	2,335,000	2,315,000
Total	2,815,000	2,780,000

PUBLIC-HEALTH METHODS AND REPORTS

The largest item of expense under this head is $148,925 for the cost of publishing Public Health Reports and Monographs. Public Health Reports, published since 1878 under authority of an act of Congress of April 29 of that year, is issued monthly by the Public Health Service pursuant to the following authority of law: United States Code, title 42, sections 241; 245, 247; title 44, section 220. This publication has been approved by the Director of the Bureau of the Budget. It is published primarily for distribution, in accordance with the law, to directors

and supervisors of public-health programs and to institutions training public health personnel.

The monthly Public Health Reports is an amalgamation of the former weekly Public Health Reports with the monthly Tuberculosis Control Issue of Public Health Reports, the monthly Journal of Venereal Disease Information, and the monthly Communicable Disease Center Bulletin.

Public Health Reports is listed in the Quarterly Cumulative Index Medicus (American Medical Association); in the Current List of Medical Literature (Armed Forces Medical Library), a monthly with semiannual cumulative indexes; and in the Industrial Arts Index.

Monographs are edited and issued by Public Health Reports under the general direction of the board of editors. The monographs present contributions to knowledge in the field of public health, particularly material that is extensive, detailed, or specialized. All manuscripts considered for publication as monographs receive the same technical and scientific review as papers submitted to Public Health Reports.

Public Health Monographs are listed in the table of contents of the issue of Public Health Reports with which they are concurrently published. They are also listed in its annual index, and in the Quarterly Cumulative Index Medicus, published by the American Medical Association, and the Current List of Medical Literature (Armed Forces Medical Library).

The monographs replace in whole or in part a number of publication series previously issued by the Public Health Service, including public-health bulletins, bulletins of the National Institutes of Health, venereal-disease bulletins, and supplements to the Journal of Venereal Disease Information and to the former weekly, Public Health Reports.

In addition to its responsibility for Public Health Reports, the Division of Public Health Methods is a staff office which is concerned with public-health practice, economics, and health trends, and with their interrelationships. It analyzes and interprets data collected by the Public Health Service and by other Government and non-Government agencies so as to provide factual foundations for public-health programs and to identify and evaluate current and future health problems and needs.

The staff of the Division is a very valuable and essential adjunct to the Service in that it provides a flexible and versatile source of diversified skills and experience which can be directed to problems of immediate concern. This is very important in dealing with health problems and with professional and voluntary groups that cut across organizational lines. It is also very important in the handling of many requests for material and data which come to the Service from high officials, commissions, and policymaking bodies, some of which deal with highly confidential problems.

MANAGEMENT AND CENTRAL SERVICES

Appropriation or estimate:

1954	$2,335,000
1955	2,315,000

Under this head are grouped the Surgeon General, his immediate assistants, and the supporting staff which is essential for him to direct and control the operations of the Service and to function as one of the staff officers of the department.

Some of the staff officers also head up activities which perform "central" services for the entire Service. The chief finance officer, in addition to his duties as the principal financial adviser to the Surgeon General, also acts as Chief of the Division of Finance which has a complement of 134 positions. This Division carries out the functions performed centrally in the fields of budget preparation and management, and in the fields of accounting and auditing. The chief personnel officer is staff adviser to the Surgeon General on personnel matters; he also is Chief of the Division of Personnel which has a complement of 103 positions to carry out all phases of personnel work performed centrally. Similar statements apply to the chief information officer with a complement of 20 positions, the Chief of the Division of General Services with a complement of 98 positions, and other staff officers.

A large item carried under this head is $310,800 for miscellaneous expenses common to all headquarters activities in the north and south HEW buildings. For example, telephone teletype, postage, and toll charges amount to $131,600

per year. Such charges recur year after year with such regularity that they are fixed charges for all practical purposes.

Over a 4-year period beginning with 1952 there has been a drastic reduction in personnel and money for this activity:

	Positions	Total obligations
1952 actual	535	$2,630,000
1955 estimated	402	2,315,000
Reduction	133	324,000

The reduction in personal services has been partially offset by pay increases required by law and increased cost of supplies, equipment, materials, and other expense items. Although the appropriations to the Public Health Service have been reduced, the complexities of its operations have increased, due in part to the expansions in medical research.

The services provided under this head have been reduced to a point below that needed to insure efficient administration. The result of further reductions would be a decline to performance by rote, contrasted with effective operation resulting from the application of improved methods which can only be accomplished if people have time to devote to improving performance.

BUDGET REQUEST

Mr. BUSBEY. Your request this year is for $2,780,000, which is $120,000 less than the appropriation for 1954. But after we take into consideration the comparative transfers, the actual decrease amounts, as I figure it, to around $35,000. Is that right?

Mr. HARLOW. Yes, sir.

INFORMATION ACTIVITIES

Mr. BUSBEY. Referring to page 4 of your statement, why is it necessary to have a chief information officer and a complement of 20?

Mr. HARLOW. As stated in our justification, this office has the responsibility for the information program of the Service.

Mr. BUSBEY. What do you mean by information program?

Mr. HARLOW. Well, the coordination of the activities of the Service which come up through our various activities and result in publications or articles or information which go to the newspapers, periodicals, and the public; but actually there are only six people who are engaged in what is commonly referred to or thought of as informational activities; that is, if we can translate that term to mean in general terms, publicity.

Mr. BUSBEY. Does that come under the heading sometimes referred to as "Public Relations"?

Mr. HARLOW. Yes, sir. We have an enormous amount of inquiries mostly from the general public, from all sorts of organizations, from Congress, from practically every class or group of citizens or organizations in the country with respect to health matters. It has made it necessary for us to set up a staff to handle those inquiries and we have 14 people out of this 20 who are engaged in those activities. For example, the workload of this group runs in the neighborhood of 50,000 inquiries handled every year. We try to do that as economically as we can. We have small leaflets published on various health subjects——

Mr. BUSBEY. That is handled by another division, though, is it not—the compiling and writing and distributing of those leaflets and booklets? Is not that done by the Publications Division?

Mr. HARLOW. Not this particular thing, Mr. Chairman. These are small leaflets which go out in response to individual inquiries. We do have a distributing point for some literature, but this is a correspondence proposition almost completely.

Dr. SCHEELE. If I may explain this a little further: In order to conserve time and yet give adequate answers to people who write in and say, "What can you tell me to do for the common cold" or "My wife has asthma; what do you know about asthma, or what should I do about asthma" or "Could you explain to me about asthma", or a student writes in about a problem, we have to write answers.

Mr. BUSBEY. It sounds like some of the inquiries that Members of Congress get, too.

Dr. DEARING. Some of those come from Members of Congress.

Dr. SCHEELE. So we keep a current, up-to-date series of little leaflets about so big [indicating], of about four pages each, saying the minimum thing, telling them to go to a doctor, and giving a brief description of the disease, and along with the publication we send a very brief letter saying "We received you postal card, or letter of inquiry, and are sending you a leaflet describing the problem about which you inquire."

In other instances where a student writes in and wants to do a thesis in high school or college, if we have publications of the various other units of the Public Health Service which are applicable and available for distribution, we put together a little pack of them and send them to the Congressman or send them to the inquirer if the inquiry has been directed to us.

So the leaflets Mr. Harlow is referring to are special little leaflets (we will be very happy to send the committee a set of them) which describe in very rough terms on cheap paper some of those things to help us avoid having to write long letters.

DIVISION OF GENERAL SERVICES

Mr. BUSBEY. Would you tell us about the complement of 98 positions in the Division of General Services? What is the activity assigned to those 98 positions?

Mr. HARLOW. Those 98 positions, Mr. Chairman, are a variety of activities which are grouped together because they are in the nature of staff and central services which do not come under the various categories of our other divisions specifically. They deal with procurement, property management, distribution services, forms and records, administrative issuances, and office services. By the way, this budget will only support an average employment of 92.

PROCUREMENT

Mr. BUSBEY. How many are employed in procurement?

Mr. HARLOW. In the Supply Branch, we have a total of 24 positions which, in addition to handling our end of the procurement in the Washington office, deals with the supply program of the Public Health Service, you might say, servicewide. That is, it has to do with the servicewide policies for the management of supply activities.

For example, it issues circulars with respect to the supply policies and procurement policies; it gets from all of our activities copies of purchase orders on which you might say it makes a post audit and analysis; it handles all of the supply contracts which are executed prior to their submission to the General Accounting Office; it is the group which is responsible for our medical supply catalog, which is a document in the neighborhood of 85 or 90 pages; it collaborates with the Department and with the General Services Administration in the preparation of Federal specifications which are issued by the General Services Administration for governmentwide procurement, and work of that type.

MORBIDITY SURVEY METHODS AND ANALYSIS

Mr. BUSBEY. Referring to page 6 of the justifications, you speak of "morbidity survey methods and analysis"; why should not this work come under the Office of Vital Statistics?

Mr. HARLOW. As indicated, this is a function which is being carried out by the Division of Public Health Methods and your inquiry, as I get it, is whether or not this is not a proper function of the Division of Vital Statistics?

Mr. BUSBEY. That is right.

Mr. HARLOW. One has to be practical in these matters, Mr. Chairman. The Division of Public Health Methods——

Mr. BUSBEY. I am sure the committee would consider that proper, because we always try to be practical.

Mr. HARLOW. The Division of Public Health methods has a long history. You are familiar with the Hagerstown project which has been carried on for many, many years and which has produced invaluable information with respect to health matters and particularly in public health practices. In doing work of that type they have acquired skills along the same lines that you would expect to find in people who were doing work related entirely to the vital statistical side. And when you have this business of going out and obtaining information with respect to and working up methods, the job falls, regardless of organizational lines, where you have the competencies. That is the practical side of it.

I think that is about all I can say with respect to it. And that is true not only with respect to this matter, but with respect to some other matters which occasionally come along where we might have involved work which one would assume would belong in one of our organizations but does not go there for the moment because we have these skills somewhere else.

Mr. BUSBEY. Is there any reason why those skills could not be transferred to the Bureau of Vital statistics?

Mr. HARLOW. Yes. Again it is a practical matter, Mr. Chairman.

Mr. BUSBEY. You are still trying to be practical, now?

Mr. HARLOW. Yes, sir. I do not like to say this, but I guess I had better do so. There is the question of the amount of money that is available to the particular organization that is involved, also the fact that those people not only have these skills, but they do have competencies in other lines, and frequently we call upon them for other work than this particular thing on which they are budgeted.

I am not saying, for example, Mr. Chairman, that that could not be done even if they were in vital statistics, but it is like so many of these consolidations that I have witnessed in my 37 years of Government career. They look mighty good on paper sometimes, but when you try them out you wind up by pushing more money in them to make them work.

Mr. BUSBEY. You are so right in that statement. I agree with you completely. I happen to be one of those who sat on the subcommittee that handled the bill for unification of our Armed Services and it would be very interesting to go back and read the hearings and some questions I asked about where the economy and the efficiency would be. Not one of them could come up with an answer. Of course history has proven I was right in my contention, because there is no unification; there is no economy.

I get the impression that you would like to leave this right at Hagerstown and under this appropriation, at least for the time being.

Mr. HARLOW. Yes, sir.

STUDY OF BILATERAL HEALTH PROGRAMS, INSTITUTE OF INTER-AMERICAN AFFAIRS

Mr. BUSBEY. Perhaps Dr. Scheele should be the one to comment on the Survey of 10 Years of Operation of the Bilateral Health Programs of the Institute of Inter-American Affairs, which was recently reported in Public Health Reports. Do you want to take that one, Dr. Scheele?

Dr. SCHEELE. I can try.

Mr. BUSBEY. I was wondering why this survey was not made by the World Health Organization.

Dr. SCHEELE. Mr. Chairman, the history of this particular report is tied to the history of some of our United States international activities beginning at the onset or just prior to the onset of World War II, when it appeared to be in the best interests of our country to concern itself in problems of health in the Latin American countries, as a precursor of the Institute of Inter-American Affairs which was created by Congress, and that organization has worked steadily in the field of aiding Latin American countries in health, education, and several other categorical programs.

Following the end of World War II, that work continued and added to it later was similar technical assistance to other underdeveloped countries in other parts of the world. Recently in the reorganization of the various so-called bilateral activities of our country, military aid, economic aid and so-called technical assistance were combined from the then existing Mutual Security Administration and the point 4 technical assistance program of the State Department into the currently existing Foreign Operations Administration headed by Gov. Harold Stassen.

Mr. BUSBEY. From where do the funds come to carry on this activity?

Dr. SCHEELE. The funds come from a direct appropriation at the present time to the Foreign Operations Administration and the part that the Public Health Service plays in their overall program is one of being the technical agency in the health field that guides their health program and the assignment of personnel for which they reimburse us.

Coming back to this report, the reason I was developing this background is this: The Latin American program has existed for approximately 10 years and I believe at the time this was prepared the Inter-American Affairs program was still in the State Department and the health officials in the program and the man in total charge over the health activities felt they should make an evaluation of the program over the past 10 years to see what they could develop, how good it was, what the defects were; what should be continued; what should be dropped; what should the program do, and they asked the Public Health Service to undertake a study of the program, which we did, using some of our own staff, and employing some consultants. This was done under contract with the State Department at that time and this represents a briefing of the larger report, because it was felt it would be of some value to people interested in the international health work to see the general nature of the report in our journal.

Mr. BUSBEY. When was this evaluation survey started?

Dr. SCHEELE. It was probably done in 1952.

Mr. BUSBEY. I noticed the date of the report is 1953.

Dr. SCHEELE. We do not indicate here, but we can supply to the committee the exact time when that was done.

(The survey was begun on August 15, 1951.)

Mr. BUSBEY. What did they do in making this survey?

Dr. SCHEELE. A survey team which is listed on page 831 of Public Health Reports consisting of the State Director of Health of the State of California and under the leadership of the health officer of California, actually visited some of these programs in action and then developed in various quarters the background information necessary to evaluate what had been done.

It does indicate in the article that we began the study in 1952. That probably means fiscal 1952, which would mean actually calendar 1951.

Mr. BUSBEY. I still go back to my original question. I really cannot understand why this was not done by the World Health Organization. What do we have the World Health Organization for if it is not for surveys and studies of this kind?

Dr. SCHEELE. I have not answered that question, I am afraid, Mr. Chairman. I will try to do that now.

The bilateral programs conducted by the Institute of Inter-American Affairs were United States programs and in this instance the United States was evaluating its own work. The programs evaluated here were not programs of the multilateral health operation. This represented an effort on the part of the Institute of Inter-American Affairs in the State Department to look at its own work, to try to get an objective survey of 10 years of its own work, to see where that work should head in the future.

COST OF SURVEY

Mr. BUSBEY. Do you have any idea what the total overall cost of this work amounted to?

Dr. DEARING. As I recall the figure of the contract it was somewhere around $80,000 that they contracted with the Public Health Service to do this study for.

Mr. BUDGE. Doctor, is not this the program that sent sanitary engineers to South America—Brazil and other nations?

Dr. SCHEELE. Yes, sir, it is.

Mr. BUDGE. How did you do that for $80,000?

Dr. SCHEELE. This was not substantially a program in the health field, but rather an evaluation of the end results of those programs. In other words, this did not get into details of saying whether they were putting in enough DDT to kill mosquitoes but more or less a determination of the value of working with the servicios system, working together with those governments in setting up programs and those countries to carry on that health work.

Mr. BUDGE. Were you reimbursed by the State Department for this expense?

Dr. SCHEELE. Yes; this was a study of the inter-American programs under Mr. Rowe, then the head of that Institute, and I believe they were operating in the State Department at that time. And this was done at their request coming to us as a technical agency. They did not have a health staff to do this sort of thing and they came to us as the technical agency and we in turn asked the director of health of the State of California to head the survey team which then undertook the studies.

On this page is a list of the people who were in charge of the study.

Then our report was a report made to the Institute of Inter-American Affairs.

INFORMATION ACTIVITIES OF DEPARTMENT

Mr. BUDGE. Mr. Chairman, one thing I would appreciate having the Department furnish us would be a tabulation of the positions and the salaries of all people in the Department engaged in information activities. I have no particular quarrel in this regard with the Department of Health, Education, and Welfare, but I know information programs generally have been to a large extent abused. As an example, I have 55 newspapers in my congressional district, most of which are weeklies. Some 18 months ago, in traveling around my district, I asked the different editors what percentage of their mail came from the United States Government. Their estimates ranged all the way from 30 up to 75 percent and almost invariably they told me they made no use of the material; that they simply filed it in "the round file."

I think the chairman has a very hot subject with which to deal when he gets into these information activities and I would appreciate if that statement could be furnished for the record for the entire Department—not just the Public Health Service.

Mr. BUSBEY. Can you provide that?

Dr. SCHEELE. Yes.

(The requested information follows:)

POSITIONS AND FUNDS INVOLVED IN PREPARATION OR DISSEMINATION OF INFORMATION TO PUBLIC AS DEFINED IN BUREAU OF THE BUDGET BULLETIN NO. 52–12, FEBRUARY 1, 1952

The following tabulation, which relates to certain positions and funds involved in the Department's preparation or dissemination of information to the public, has been compiled at the subcommittee's request.

In making the tabulation, a definition was used which had previously been applied several times in furnishing the Bureau of the Budget similar information for the House Committee on Appropriations. The definition is set forth most recently in Bureau of the Budget Bulletin No. 52–12, dated February 1, 1952, and is as follows:

"3. *Definition of public relations and publicity activities.*—Activities considered as public relations and publicity for purposes of this report include: Preparation of material for newspapers, periodicals, and other non-Federal publications; distributing press releases and interviewing representatives of the press; Preparation of material for broadcasting purposes and contacts with broadcasting representatives; preparation of advertisements (whether paid or free) except advertising relating to the acquisition or disposal of Government property; preparation, installation, and circulation of exhibits; production of motion pictures and film strips except those for internal use in the Government; and preparation of publications neither required by law nor issued primarily for internal use in the Government.

"Excluded from consideration should be the time of employees whose work is devoted to publications required by law (e. g., annual reports, farmers' bulletins, internal-revenue decisions, and other publications of that type) or those primarily for use within the Government; the answering of correspondence from the public; and the issuance of interpretations on regulations, orders issued under the Administrative Procedure Act, etc."

This definition was applied to the departmental service and to two field installations, the National Institutes of Health, Bethesda, Md., and the Communicable Disease Center, Atlanta, Ga. Other field installations were not included because of the necessity of submitting the report promptly and also because of the limited extent to which they probably would be involved under the definition.

It will be noted that the summary, which is by major units of the Department, is in terms of man-years involved in the performance of the duties set forth in the definition. The funds, likewise, are the amount involved in the performance of these duties. The detailed tabulation shows the individual positions and the extent, by man-years and funds, of their duties within the terms of the definition. Any position in which less than 0.05 man-year is devoted to activities covered by the definition was not included because such amounts, both in time and money, would be negligible in the final results.

The compilation by man-years is necessary because the Department's public reporting and operating functions are highly integrated. The staff responsible for public reporting is assigned to particular programs—food and drug regulation, child health, etc. The same person ordinarily may prepare material in his subject-matter field for the annual report, other Department publications required or authorized by law, and for non-Government publications, newspapers, radio, etc. Conversely, no one in the Department is assigned exclusively to press work or radio production or any similar media specialty.

In administering nationwide programs which in one way or another directly affect the health, education, or security of individuals and families, the Department's obligations for public information are a statutory and integral part of its responsibility and an essential of effective and economical operation. This function entails the presentation of legal, scientific, and technical material in an accurate, understandable form that is accessible to all the people who need and want it.

The nature and content of the Department's public information materials is determined by the statutory purposes of its operating programs. Congress has specifically directed by legislation:

(1) That the Public Health Service disseminate medical, technical, and scientific information necessary to the progress of research;

(2) That the Office of Education collect statistics and facts showing the condition and progress of education, and diffuse such information;

(3) That the Social Security Administration study and recommend the best methods of providing economic security through social insurance;

(4) That the Children's Bureau investigate and report upon all matters pertaining to the welfare of children and child life among all classes of our people;

(5) That the Food and Drug Administration publish reports of all judgments, decrees, and court orders under the Federal Food, Drug, and Cosmetic Act, and disseminate information regarding food, drugs, devices, or cosmetics in situations involving imminent danger to health or gross deception of the consumer; and

(6) That the Office of Vocational Rehabilitation make studies, investigations, and reports with respect to abilities, aptitudes, and capacities of handicapped individuals, development of their potentialities, and their utilization in gainful and suitable employment.

The positions reported in the tabulation have duties primarily designed to meet these statutory responsibilities. These positions are utilized extensively in the preparation and dissemination of:

(1) Medical, technical, and scientific information in such periodicals as Public Health Reports and Journal of the National Cancer Institute, in monographs dealing with water pollution, malaria, typhus, plague, tuberculosis;

(2) Over 300 technical items annually for use in schools and colleges and 2 technical education periodicals, School Life and Higher Education;

(3) Instructional material for employees covered by social security and technical material in the periodical Social Security Bulletin;

(4) Technical bulletins for parents, including the well-known document, Infant Care;

(5) About 1,700 food and drug "Notices of Judgment" annually and general and special regulations, including "Definitions and Standards for Food"; and

(6) Technical, medical, and psychological information designed to facilitate the rehabilitation of disabled persons, such as the publications entitled "Psychiatric Information for Rehabilitation Workers," "Psychological Aspects of Physical Disability," "Instructional Guide for Use in Vocational Schools Providing Training for Blind Persons," and "Physical Rehabilitation of the Amputee."

Summary of positions and funds

Type	Man-years	Amount of salaries involved
OFFICE OF THE SECRETARY		
Professional positions	2.1	$15,801
Clerical positions	2.3	8,376
Total	4.4	24,177
PUBLIC HEALTH SERVICE		
Professional positions	1.9	15,353
Clerical positions	.95	3,300
Total	2.85	18,653
OFFICE OF EDUCATION		
Professional positions	.2	1,896
Clerical positions	.1	422
Total	.3	2,318
FOOD AND DRUG ADMINISTRATION		
Professional positions	.65	5,276
FOOD AND DRUG ADMINISTRATION—continued		
Clerical positions	.15	$666
Total	.80	5,942
OFFICE OF VOCATIONAL REHABILITATION		
Professional positions	.8	6,720
Clerical positions	.6	2,125
Total	1.4	8,845
SOCIAL SECURITY ADMINISTRATION		
Professional positions	3.75	27,412
Clerical positions	1.5	5,344
Total	5.25	32,756
Department total	15.0	92,691

Tabulation of positions chargeable to duties covered by definition

Position title	Grade	Annual salary	Man-year	Salary
OFFICE OF THE SECRETARY				
Special assistant to Secretary	GS–15	$10,800	0.15	$1,620
Office of Publications and Reports:				
Press officer	GS–13	8,760	.25	2,190
Clearance and editorial officer	GS–12	8,040	.1	804
Information clerk	GS–7	4,330	.1	433
Committee on Aging and Geriatrics:				
Chairman, Committee on Aging and Geriatrics	GS–14	10,000	.1	1,000
Assistant to Chairman, Committee on Aging and Geriatrics.	GS–12	8,040	.25	2,010
Secretary	GS–5	3,410	.1	341
Division of General Services:				
Addressing machine operator	GS–2	2,750	.05	137
Do	GS–2	2,750	.05	137
Do	GS–2	2,750	.05	137
Foreman, bindery unit	WB–16	5,095	.05	255
Assistant foreman, bindery unit	WB–15	4,988	.05	249
Power collator operator	WB–14	4,700	.05	235
Do	WB–14	4,700	.05	235
Bindery worker	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Do	WB–8	3,349	.05	167
Varitypist supervisor	GS–6	4,545	.05	227
Editorial clerk	GS–5	4,035	.05	202
Do	GS–5	3,785	.05	189
Varitypist	GS–3	3,430	.05	171
Do	GS–3	3,510	.05	175
Do	GS–3	3,030	.05	151
Do	GS–3	2,950	.05	146
Tabulating equipment operator	GS–2	3,150	.05	157
Chauffeur	CPC–3	3,112	.1	311
Messenger	CPC–3	3,032	.1	303
Illustrator (general)	GS–7	4,445	.25	1,111
Do	GS–5	3,535	.25	884
Clerk-typist	GS–4	3,415	.25	854
Illustrator (general)	GS–13	8,760	.25	2,190
Do	GS–11	6,540	.5	3,270
Do	GS–9	5,435	.5	2,717
PUBLIC HEALTH SERVICE				
Office of the Surgeon General:				
Information specialist	GS–14	9,600	.15	1,440
Do	GS–13	8,360	.05	418
Do	GS–11	6,940	.05	347
Secretary	GS–5	3,660	.05	183
Do	GS–5	4,035	.05	202
Bureau of State Services:				
Information officer	GS–13	9,360	.05	468
Visual presentation information specialist	GS–12	7,500	.05	375
Information specialist	GS–12	7,300	.05	365
Publication writer	GS–11	6,600	.15	990
Editorial clerk-typist	GS–4	3,655	.05	183
Information specialist	GS–9	5,885	.05	294
Do	GS–12	7,400	.15	1,110
Stenographer	GS–5	3,800	.05	190
Information specialist	GS–12	7,840	.1	784
Do	GS–12	8,040	.2	1,608
Stenographer	GS–4	3,500	.1	350
Bureau of Medical Services:				
Chief of Information	GS–13	8,360	.1	836
Secretary	GS–5	3,535	.05	177
National Institutes of Health:				
Information officer	GS–14	9,600	.15	1,440
Information specialist	GS–12	8,040	.1	804
Secretary (stenographer)	GS–5	3,535	.15	530
Do	GS–4	3,415	.1	342
Information officer	GS–12	8,040	.05	402
Clerk-stenographer	GS–4	3,655	.05	183
Information officer	GS–12	8,040	.05	402
Secretary	GS–4	3,495	.05	175
Information officer	GS–13	8,960	.1	896
Do	GS–13	8,560	.1	856
Clerk-stenographer	GS–3	2,950	.1	295
Information officer (general)	GS–12	8,040	.1	804
Secretary	GS–4	3,415	.1	342

Tabulation of positions chargeable to duties covered by definition—Continued

Position title	Grade	Annual salary	Man-year	Salary
PUBLIC HEALTH SERVICE—continued				
National Institutes of Health—Continued				
Information officer	GS-12	$7,040	.05	$352
Do	GS-12	7,240	.05	362
Clerk-typist	GS-3	2,950	.05	148
OFFICE OF EDUCATION				
Chief, Reports and Technical Services	GS-14	9,600	.1	960
Chief, Reports Section	GS-13	9,360	.1	936
Secretary to Chief, Reports and Technical Services	GS-6	4,545	.05	227
Secretary to Chief, Reports Section	GS-5	3,910	.05	195
FOOD AND DRUG ADMINISTRATION				
Food and drug officer	GS-14	10,000	.25	2,500
Information specialist	GS-11	6,940	.40	2,776
Information and editorial specialist	GS-7	4,830	.10	483
Editorial clerk	GS-5	3,660	.05	183
OFFICE OF VOCATIONAL REHABILITATION				
Chief, Information Service	GS-13	9,360	.4	3,744
Information specialist	GS-12	7,440	.4	2,976
Stenographer	GS-4	3,655	.3	1,096
Clerk-typist	GS-3	3,430	.3	1,029
SOCIAL SECURITY ADMINISTRATION				
Office of Commissioner:				
Information officer	GS-13	9,360	.3	2,808
Secretary	GS-4	3,655	.1	366
Bureau of Old-Age and Survivors Insurance:				
Information officer	GS-13	8,760	.1	876
Information specialist	GS-12	7,240	.05	362
Do	GS-12	7,240	.20	1,448
Do	GS-11	6,740	.50	3,370
Do	GS-9	5,685	.55	3,127
Do	GS-7	4,955	.05	248
Do	GS-7	4,205	.05	210
Secretary	GS-5	3,535	.1	354
Do	GS-4	3,415	.15	512
Clerk-stenographer	GS-3	3,030	.05	152
Bureau of Public Assistance:				
Information specialist	GS-12	7,640	.2	1,528
Clerk-stenographer	GS-4	3,335	.1	333
Children's Bureau:				
Director, Division of Reports	GS-13	9,160	.5	4,580
Information specialist	GS-12	7,240	1.0	7,240
Visual information specialist	GS-11	6,740	.2	1,348
Do	GS-7	4,830	.15	725
Secretary	GS-5	3,660	.5	1,830
Clerk-typist	GS-4	3,415	.4	1,366

FINANCING OF SURVEY

Mr. BUSBEY. Now, how many people working on this evaluation survey were paid out of Public Health Service funds?

Mr. HARLOW. None. That was completely reimbursable.

Dr. SCHEELE. I think this additional comment should be made. I am sure there were a few Public Health Service people so far as dealing with the broad aspects of the survey were concerned—for example, certain work goes on in the negotiations leading to the survey and in the actual end formation of the survey, that were not compensated for. For instance, a number of hours of my time were devoted to it which were not reimbursed.

I did not want Mr. Harlow's comment to imply there was absolutely no time spent for which the Public Health Service was not reimbursed; but there was no time more than just a short amount of time that our administrative people would have to do.

Mr. BUSBEY. Does anyone know if this job was accomplished for the $80,000 provided under the contract, or were additional funds required, or were there funds left over?

Mr. HARLOW. Of course Dr. Dearing's statement of the $80,000 was based on recollection. I would like permission to supply you with the exact total expenditures for that survey.

Mr. BUSBEY. Very well.

(The information referred to follows:)

The total expense of the Public Health Service was $60,469 which was reimbursed by the Institute of Inter-American Affairs.

Mr. BUSBEY. Now, Dr. Scheele, what other studies have been made or are being contemplated in the international field in this or any other part of the world?

Dr. SCHEELE. None to my knowledge, Mr. Chairman. I do not believe the Foreign Operations Administration has asked us to do any studies, and I know of no others. We are not doing any independently in the Public Health Service; but we do accumulate intelligence. We have monthly reports from the teams of health people who are in those various countries, Indochina and the rest, and we put those together in a very small report so that we can see what is going on; what problems they are working on at a given time. But those are not evaluations in this way; they are just part of our routine intelligence.

PROCEDURE FOR PAYING EXPENSES OF PHS PERSONNEL ASSIGNED TO FOREIGN OPERATIONS ADMINISTRATION

Mr. BUSBEY. When one of your commissioned officers who happens to be on the staff of a State health department is sent to some foreign country is he paid out of FOA funds, or out of what funds?

Dr. SCHEELE. You are referring to the situation in which a person in the State health department has an Inactive Reserve commission in the Public Health Service?

Mr. BUSBEY. Yes.

Dr. SCHEELE. When he would be called to duty in the Public Health Service for assignment to the Foreign Operations Administration mission in a foreign country?

Mr. BUSBEY. I have a specific case in mind and I do not know whether the assignment was to FOA, or not; but in this particular case I know he was assigned to Ethiopia.

Dr. SCHEELE. That would be the Foreign Operations Administration, because all of the programs have been merged under the single agency of the Foreign Operations Administration. We would assign him to them and he would work in Ethiopia under the mission chief of the total program of the Foreign Operations Administration in that country. We, however, would pay him, reimbursed by the Foreign Operations Administration. We would pay his salary and be reimbursed for his salary and expenses by the Foreign Operations Administration.

Mr. BUSBEY. I am trying to follow Mr. Harlow's example of being practical. Why would it not be better just to let the FOA pay him

directly, instead of your paying him and then having to ask for reimbursement from FOA? It seems to me we could eliminate one step and make it a more practical operation.

Dr. SCHEELE. FOA operating directly would probably need some experienced men, as certain Government agencies have had to assist the Veterans' Administration and the Army Air Force and they would have difficulty in the recruiting of health personnel for these countries. The prestige of the Public Health Service, the total breadth of our program, the satisfaction that comes to someone being associated with our program and our technical guidance is sufficient to give us enough drawing power to supply, at least partially, those programs abroad. Therefore, in practice the custom of the Public Health Service assigning personnel appears to be the best one.

I might say, too, that many of these assignments are hardship assignments and by the use of our commission system, with the concept of rotation, and the individual being available for service at any time the exigencies demand it, at any place, we are able to develop a rotational system so that after 2 years these men who have been off on hardship assignments come back and, because of the range of other programs we have, we are able to give them good assignments as their next assignment on their return. And if FOA were to operate independently, I doubt very much whether they would be able to fulfill their obligations in the health field.

Mr. BUDGE. Mr. Chairman, before we leave this foreign operation, cannot we find out how many people there are in the category you have just been discussing outside of the United States?

Mr. HARLOW. We can supply that. It is possible it was supplied at the time we were reporting on the international activities.

Mr. KELLY. We did furnish for the record a tabulation of our Public Health Service personnel who are outside of the confines of the United States. If that is not complete with respect to the FOA personnel, we will supply that.

(The information referred to follows:)

Public Health Service—Personnel budgeted for 1954 for FOA assignments outside the United States

ACCOUNT FROM WHICH PAID, AND ASSIGNMENT	*Number of positions*
Reimbursements to "Assistance to States, general, Public Health Service"—personnel assigned to Institute of Inter-American Affairs	29
"Corporate funds, the Institute of Inter-American Affairs, FOA (allocated working fund to Health, Education, and Welfare)"—personnel detailed to Central and South American countries under the point 4 program	8
"Economic and technical assistance, defense support, Asia and Pacific other than Formosa and the Associated States of Cambodia, Laos, and Viet-Nam, Executive (transfers to Health, Education, and Welfare)"—personnel detailed to Asia and Pacific area under the point 4 program	65
"Economic and technical assistance, Near East and Africa, Executive (transfer to Health, Education, and Welfare)"—personnel detailed to Near East and Africa under the point 4 program	134
"Mutual defense financing defense support, economic and technical assistance, Formosa and the Associated States of Cambodia, Laos, and Viet-Nam, Executive (transfers to Health, Education, and Welfare)"—personnel detailed to Formosa, etc., under point 4 program	27
Total	263

PUBLIC HEALTH REPORTS

Mr. FOGARTY. Is this monthly publication, Public Health Reports, something new?

Dr. SCHEELE. No, sir. This publication has been in existence for many decades. We did change the format and improved the publication a few years ago.

Mr. FOGARTY. I thought it was an amalgamation of the former Public Health Service reports with tuberculosis control, and so forth.

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. You are not issuing separate monthly reports on tuberculosis or venereal disease, or other specific diseases, any more?

Dr. SCHEELE. No, sir; we are not.

Mr. FOGARTY. That has been done recently?

Dr. SCHEELE. 1952.

Mr. FOGARTY. I think it would be a good thing if the members of the committee could receive these reports. That could be done without much trouble?

Dr. SCHEELE. Yes, sir.

Mr. FOGARTY. I have no further questions.

OPERATIONS UNDER THE SERVICE AND SUPPLY FUND

Mr. BUSBEY. During last year's hearings we had considerable discussion of the laboratory you had just started at the supply depot at Perry Point. As I recall, it was financed out of the service and supply fund. Has that laboratory at Perry Point that we discussed last year been discontinued?

Mr. HARLOW. No, sir; the laboratory has not been discontinued.

Mr. BUSBEY. Then will you tell us about its operations for the last year, please?

Mr. HARLOW. Yes, sir. I think with respect to the details of just exactly the volume of work handled, the articles, and so forth, I would have to ask permission to supply that. There is one thing we have not yet mentioned in connection with the laboratory, however, that I would like to bring to your attention, and that is the fact that about 30 percent of the medical supplies which are used in the clinical-center operation at Bethesda for the treatment and handling of patients is procured through the Perry Point Depot. I was talking fairly recently to people at the NIH about that situation and they said they had looked into the testing operations at Perry Point with a view to determining whether they were satisfactory to meet their requirements which, as might be expected in some instances, would be more exacting than you would find in an ordinary hospital operation. And they had decided, as a result of the testing operation at Perry Point, it would not be necessary for them to do any testing on medical supplies procured from that source, except in some rare cases where very precise measurements were necessary.

The operation itself is a simple one. One pharmacist is assigned to it. The equipment, of which we furnished you a list last year, did not cost so much.

Mr. BUSBEY. How much did it cost?

Mr. HARLOW. The figure I recall, Mr. Chairman, is about $5,800. I could be off a thousand dollars or two on that.

(The information requested is as follows:)

OPERATIONS OF THE TESTING LABORATORY

Approximately 1,190 inspections were made on various dental supplies and equipment, hospital supplies and equipment, drugs, chemicals and miscellaneous pharmaceutical supplies.

From the inspections, it was determined that 375 items needed further examination and necessary tests were performed. Items tested included cloth, hospital garments, hypodermic needles and syringes, clinical and rectal thermometers, drugs, chemicals, and pharmaceutical supplies.

Testing operations resulted in the rejection of 25 separate items including pajama coats, formaldehyde solution, operating turbins, unbleached muslin, hypodermic syringes, silver nitrate crystals, and other similar items. In one instance, it was discovered that the item received was dihydrostreptomycin rather than the item ordered, streptomycin.

After rejections, claims were made against the vendors and proper adjustments and/or replacements were made.

PURCHASES OF EQUIPMENT COMPARED TO BUDGET ESTIMATES

Mr. BUSBEY. In the committee print at page 169 under "Supply depot activities" it shows acquisition of equipment in 1953 as $17,031, but last year's budget showed that in 1953 you were going to use $3,345. There is a difference of over $13,600. What is the explanation of that?

Mr. HARLOW. I would be glad to furnish you with a complete list of that equipment, Mr. Chairman.

Mr. BUSBEY. I think it would be a good idea to furnish a complete list of the equipment that made up the estimate of $3,345, and also a complete list of the equipment that makes up the $17,031.

Mr. HARLOW. Yes, sir.

(The requested information follows:)

Estimated equipment, fiscal year 1953, for fiscal year 1954 budget

Infusion pump	$225
Water still	945
Truck, fork-lift	360
Furnace, incubator	1,010
Tank, mixing	785
Pump, water	20
Total	3,345

Equipment purchased, fiscal year 1953

Heater, electric, glass-col	$12. 75
Stone top, Alberene	40. 00
Covers, slip	153. 00
Z-sterilamps and fixture	55. 20
Truck, Dodge	3, 875. 00
Apparatus, tablet disintegration	140. 00
Machine, autoclave	27. 50
Siphon, safety	15. 00
Pump, centrifugal, s. s. with adapters	182. 00
Sterilizer	4, 654. 00
Machine, filamatic-infusion pump	225. 29
Balance	45. 00
Water still	900. 00
Fittings for water still	45. 00
Truck, fork-lift	360. 00
Apparatus, stirring	32. 50
Furnace, incubator, rheostat	1, 006. 95
Sink	370. 00
Tank, vertical mixing	789. 00
Flexafrome, desiccator	159. 66
Machine, printing, additional parts	70. 95
Machine, printing	493. 00
Spectrophotometer	1, 865. 34
Water bath	183. 00
Pump, quarter stroke	18. 30
Table, stainless-steel	198. 00
Pump	28. 97
Kettle and cover	482. 00
Oven, drying	603. 74
Total	17, 031. 15

Mr. BUSBEY. The actual purchases were more than five times the estimate presented to this committee. I just do not see what is the use of presenting figures to the committee if they are going to be that far off. There is no value to them. Do you think so?

Mr. HARLOW. Well, they have the value of giving you our best judgment on what the thing will amount to.

Mr. BUSBEY. Whose best judgment was off 500 percent?

Mr. HARLOW. The judgment of the people who handle this fund, of course.

Mr. BUSBEY. I do not think there is much reliability to be put on their judgment myself, if they are going to be 500 percent off. You would have to admit it is quite a difference, is it not?

Mr. HARLOW. It is a big difference percentagewise, Mr. Chairman; but let me also make this observation, if I may, that when you get into percentages they may mean much or little in terms of actual money. For instance, if I had a dollar in my pocket and my assets were increased 100 percent, I would still only have $2.

Dr. SCHEELE. I think we might be able to give a better answer to that question when we see the breakdown of the lower sum which we were estimating some months before the operation of the fiscal year began, and the actual amount as shown here.

Mr. BUSBEY. From where did these extra funds come that they used in buying this equipment?

EXPLANATION OF FISCAL OPERATION OF FUND

Mr. HARLOW. That was a part of the capital of the operation. This fund was established in 1945 (incidentally, it was initiated by Mr. Thomas who sat on the committee at that time) in the amount of $250,000. And in the 1954 appropriation act you authorized an additional $200,000 of capital by transfer from the NIH appropriations to take care of their supply operation out there. Then at the time the fund was established there was on hand an inventory which was worth about $345,000 which was also capitalized as donated capital.

The fund has operated with that capital since its establishment. It has over the years shown a small profit and those profits are also now in the fund. And it was out of the capital of the fund that these expenditures were made.

I might say that using a business-type accounting, particularly in that operation, we have every year set up a reserve for depreciation of equipment, so that the expenditures for equipment are, over the course of an average of about 10 years, brought back into the fund from the surcharges which are put upon the issues.

INCREASE IN VALUE OF EQUIPMENT IN 1954

Mr. BUSBEY. I notice on page 171 of the committee print, in the "Statement of Financial Condition", that the value of equipment is increasing from $67,991 in 1953, actual, to an estimated $150,910 in 1954. I wonder if you would give the committee an explanation for that increase.

Mr. HARLOW. May I get your permission to correct this?

Mr. BUSBEY. Surely.

Mr. HARLOW. My impression right now is that results from the bringing into the picture of the NIH operation. I could be wrong about that.

Mr. BUSBEY. And if there is any further explanation, feel free to include it in your revision.

Mr. HARLOW. Yes, sir.

PROCUREMENT OPERATIONS

Mr. BUSBEY. Now you have procurement people in each of the divisions of the Public Health Service, do you not?

Mr. HARLOW. No, sir.

Mr. BUSBEY. In what divisions do you have procurement people?

Mr. HARLOW. We only have those in the Division of General Services in the Office of the Surgeon General. Now I must exclude from my answer the large field operations, such as the National Institutes of Health, the Sanitary Engineering Center, and the Communicable Disease Center, but here in Washington we only have procurement people in the Division of General Services.

Mr. BUSBEY. What about procurement for the Marine hospitals?

Mr. HARLOW. The Marine hospitals do their own procurement quite generally. For example, they requisition supplies from the Perry Point Supply Depot. They make local purchases, particularly of subsistence items; they order from the nearest General Service

Administration warehouse and quite generally I might say they do their own procurement.

Mr. BUSBEY. Would you agree it would be a correct statement to say that we have various divisions of the Public Health Service procuring from General Services, from Perry Point, and also directly?

Mr. HARLOW. Yes, sir.

Mr. BUSBEY. What has been done to explore the possibilities of coordinating that, so that some of it might be eliminated? Has that been considered?

Mr. HARLOW. One of the operations that I mentioned in connection with our supply group here in Washington was the analysis and examination of purchase orders which are issued in all of our activities. One of the purposes of that is to find out where a large number of small purchases if put together would be a fairly sizable amount. That has a value in enabling us to determine, for example, whether it is desirable to stock certain items at Perry Point; that has a value in determining whether or not to make recommendations through the Department to the General Services Administration that a GSA contract be negotiated for these types of articles.

It is difficult for me to conceive of a situation where the actual ordering for the requirements of a particular station could be done with any advantage to the program anywhere else but at the station.

Mr. BUSBEY. It appears to me that the Public Health Service has two layers of procurement personnel and records; one at Perry Point and one in the Division.

Mr. HARLOW. No actual procurement is done at Perry Point. The procurement procedures for Perry Point are conducted by the Division here in Washington. They are a warehousing and supply operation completely.

Mr. BUSBEY. Now is there a third layer in the Surgeon General's Office?

Mr. HARLOW. It is in the Surgeon General's Office where we have this group.

Mr. BUSBEY. So that it does not add a third division?

Mr. HARLOW. No, sir.

INCREASE IN PERSONNEL UNDER SERVICE AND SUPPLY FUND

Mr. BUSBEY. Now the budget for the fiscal year 1948 shows in the actual 1946 column almost exactly the same value of purchases and sales as were made under the service and supply fund last year. In 1946 we all know that prices were lower, so the total volume of goods handled must have been greater in 1946 than last year; yet in 1946 you only needed 15 people to run the operation and last year it took 20. I wonder if you would enlighten the committee a little on that.

Mr. HARLOW. I will have to plead ignorance on that situation, Mr. Chairman, and ask your permission to look into it.

Mr. BUSBEY. Will you supply an explanation for the record?

Mr. HARLOW. Yes, sir.

(The information requested is as follows:)

Increase in staff at Medical Supply Depot from 1946 to 1953

Title	Number of positions	Justification
Pharmacist	1	An additional pharmacist was needed in order to efficiently operate the inspection and testing laboratory.
Storekeeper	2	The movement of forms and envelopes into the Medical Supply Depot, as well as the increase in the various medical items required the additional storekeepers.
Clerk-typist	1	The increase in office work due to the movement of forms and envelopes into the Medical Supply Depot required the addition to the office staff.
Truckdriver	1	The acquisition of a truck for the making of rapid deliveries to nearby stations required a qualified truckdriver.

PRINTING AND REPRODUCTION

Mr. BUSBEY. What does the item of $375,000 for printing in 1954 represent?

Mr. HARLOW. In what fund is that? Is that in the supply fund?

Mr. BUSBEY. Yes; it is shown at page 171 of the committee print under "Accrued expenditures by objects." It says, "Printing and reproduction, $375,000."

Mr. HARLOW. Those are forms that we stock at Perry Point for the most part.

Mr. BUSBEY. $375,000 worth of forms?

Mr. HARLOW. Yes, sir.

Mr. BUSBEY. That ought to stock a lot of forms.

Mr. HARLOW. It does. There is almost one-half of one warehouse down there, or more accurately about a quarter of it, that has forms stocked.

(The following was subsequently submitted:)

It is estimated that $175,000 will be advanced to the Department's Division of General Services, on a reimbursable basis, for miscellaneous types of printing, such as the printing of budget estimates and reports of activities in the National Institutes of Health and other PHS activities.

An estimated $200,000 will be used in the storage and issue of PHS and departmental forms at the Medical Supply Depot.

Mr. BUSBEY. Now referring over to page 213 of the committee print, we have another item of "Printing and reproduction" of $45,000 under the Secretary's working fund. Is this the same sort of thing as for other divisions of the Department?

Mr. HARLOW. I am not familiar with that operation, Mr. Chairman, but I think——

Mr. BUSBEY. Perhaps Mr. Kelly would want to reply to that.

Mr. KELLY. I would like to look into that if I may, Mr. Chairman; but I believe that does not include forms, but rather includes the cost of reproduction which is then charged back to the constituent which is procuring the reproduction.

Mr. BUSBEY. Will you check that and furnish the explanation for the record, please?

Mr. KELLY. Yes, sir.

Mr. BUSBEY. And you might also explain why it is better to do it one way in Public Health and another way in the rest of the Department.

Mr. KELLY. Yes, sir.

(The information requested is as follows:)

The $45,000 for "Printing and reproduction" in the Secretary's working capital fund is for the procurement of (1) reproduction work from the Government Printing Office, field plant, which cannot be reproduced by the Department because of the restrictions of the Joint Committee on Printing on the equipment we may have and the quantity we may produce, $32,000; and (2) overprinted snap-out forms used departmentwide, $13,000. All of the funds advanced to the Secretary's working capital fund, including the $45,000 for printing and reproduction are justified in the budget estimates of the constituent organizations of the Department.

A portion of these amounts represent funds reimbursed or advanced for payment of printing and binding procured for Public Health Service. The handling of Public Health printing and binding is incorporated in this system and therefore does not vary.

Mr. BUSBEY. If there are no further questions, thank you, gentlemen.

MONDAY, MAY 10, 1954.

HOSPITALS AND MEDICAL CARE

WITNESSES

DR. G. HALSEY HUNT, ASSOCIATE CHIEF, BUREAU OF MEDICAL SERVICES
DR. W. PALMER DEARING, DEPUTY SURGEON GENERAL
ROY L. HARLOW, CHIEF FINANCE OFFICER

SALARIES AND EXPENSES

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$33,688,000	$33,100,000	$33,040,000
Transferred from "Promotion and further development of vocational education, Office of Education," pursuant to Public Law 286		17,500	
Adjusted appropriation or estimate	33,688,000	33,117,500	33,040,000
Reimbursements from non-Federal sources	625,857	653,500	712,300
Reimbursements from other accounts	4,666,052	3,309,500	3,110,700
Total available for obligation	38,979,909	37,080,500	36,863,000
Unobligated balance, estimated savings	−21,132		
Obligations incurred	38,958,777	37,080,500	36,863,000
Comparative transfer from—			
"Salaries, expenses, and grants, National Cancer Institute, Public Health Service"	174,960		
"Salaries and expenses, Public Health Service"	109,747		
Total obligations	39,243,484	37,080,500	36,863,000

NOTE.—Reimbursements from non-Federal sources above are for medical services provided to foreign seamen, voluntary addicts, and for dependent care and outpatient visits (42 U. S. C. 221).

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
Direct obligations			
Appropriated funds:			
1. Operation of hospitals	$27,454,063	$25,924,400	$26,001,730
2. Operation of outpatient clinics and offices	4,193,329	4,506,800	4,438,770
3. Operation of health units	9,580	9,600	9,600
4. Coast Guard medical services	1,017,079	953,700	906,150
5. Development and coordination of nursing resources	91,917	90,000	90,000
7. Payments to Hawaii	500,000	1,000,000	1,000,000
8. Administration	685,607	633,000	593,750
Total appropriated funds	33,951,575	33,117,500	33,040,000
Reimbursements from non-Federal sources:			
1. Operation of hospitals	625,857	653,500	712,300
Total direct obligations	34,577,432	33,771,000	33,752,300
Obligations Payable Out of Reimbursements From Other Accounts			
1. Operation of hospitals	3,244,533	1,742,200	1,543,400
3. Operation of health units	296,584	312,300	312,300
6. Personnel detailed to other agencies	1,124,935	1,255,000	1,255,000
Total obligations payable out of reimbursements from other accounts	4,666,052	3,309,500	3,110,700
Total obligations	39,243,484	37,080,500	36,863,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Summary of Personal Services			
Total number of permanent positions	7,809	7,052	7,039
Full-time equivalent of all other positions	115	95	95
Average number of all employees	7,025	6,465	6,449
Average salaries and grades:			
General schedule grades:			
Average salary	$3,685	$3,729	$3,729
Average grade	GS–4.3	GS–4.3	GS–4.3
Crafts, protective, and custodial grades:			
Average salary	$3,037	$3,076	$3,076
Average grade	CPC–3.7	CPC–3.7	CPC–3.7
Personal service obligations:			
Permanent positions	$28,554,207	$26,656,700	$26,553,050
Other positions	1,006,170	962,600	962,600
Regular pay in excess of 52-week base	76,454	69,000	69,000
Payment above basic rates	868,303	736,700	736,700
Total personal service obligations	30,505,134	28,425,000	28,321,350
Direct Obligations			
Appropriated funds:			
01 Personal services	26,036,295	24,976,800	24,971,650
02 Travel	305,582	245,700	222,200
03 Transportation of things	340,315	272,200	240,100
04 Communication services	122,553	141,900	121,600
05 Rents and utility services	476,765	505,500	497,000
06 Printing and reproduction	64,045	53,200	53,400
07 Other contractual services	965,404	1,092,200	960,470
Services performed by other agencies	517,577	506,100	583,300
08 Supplies and materials	4,691,967	4,625,400	4,594,140
09 Equipment	583,613	220,900	315,840
11 Grants, subsidies, and contributions	516,518	1,017,300	1,016,000
13 Refunds, awards, and indemnities	3,369		
15 Taxes and assessments	41,172	50,100	57,100
Subtotal	34,665,175	33,707,300	33,632,800
Deduct charges for quarters and subsistence	713,600	589,800	592,800
Total obligations payable out of appropriated funds	33,951,575	33,117,500	33,040,000

Obligations by objects—Continued

Object classification	1953 actual	1954 estimate	1955 estimate
Direct Obligations—Continued			
Reimbursements from non-Federal sources:			
01 Personal services	$499,242	$522,700	$574,100
02 Travel	4,767	4,500	3,900
03 Transportation of things	5,774	5,700	5,100
04 Communication services	2,229	2,500	2,500
05 Rents and utility services	10,409	12,000	12,700
06 Printing and reproduction	1,065	1,000	1,100
07 Other contractual services	7,365	7,700	8,200
08 Supplies and materials	97,690	106,600	113,020
09 Equipment	12,275	4,600	6,480
15 Taxes and assessments	853	1,000	1,500
Subtotal	641,669	668,300	728,600
Deduct charges for quarters and subsistence	15,812	14,800	16,300
Total obligations payable out of reimbursements from non-Federal sources	625,857	653,500	712,300
Total direct obligations	34,577,432	33,771,000	33,752,300
Obligations payable out of reimbursements from other accounts			
01 Personal services	3,969,597	2,925,500	2,775,600
02 Travel	28,971	15,600	11,900
03 Transportation of things	34,454	19,000	14,700
04 Communication services	12,338	7,400	6,300
05 Rents and utility services	53,963	32,100	27,500
06 Printing and reproduction	5,814	3,100	2,800
07 Other contractual services	39,871	22,200	19,600
08 Supplies and materials	527,899	304,700	265,600
09 Equipment	69,777	16,300	18,100
13 Refunds, awards, and indemnities	300		
15 Taxes and assessments	5,038	3,600	4,100
Subtotal	4,748,022	3,349,500	3,146,200
Deduct charges for quarters and subsistence	81,970	40,000	35,500
Total obligations payable out of reimbursements from other accounts	4,666,052	3,309,500	3,110,700
Total obligations	39,243,484	37,080,500	36,863,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$3,068,000	$2,599,270	$2,457,500
Obligations incurred during the year	38,958,777	37,080,500	36,863,000
	42,026,777	39,679,770	39,320,500
Deduct:			
Adjustment in obligations of prior years	154,484		
Reimbursements	5,291,909	3,963,000	3,823,000
Obligated balance carried to certified claims account	19,192		
Unliquidated obligations, end of year	2,599,270	2,457,500	3,657,500
Total expenditures	33,961,922	33,259,270	31,840,000
Expenditures are distributed as follows:			
Out of current authorizations	31,408,504	30,910,000	29,690,000
Out of prior authorizations	2,553,418	2,349,270	2,150,000

Mr. BUSBEY. The appropriation request before the committee at the present time is for hospitals and medical care, Public Health Service. We will insert your prepared statement in the record at this point, Dr. Hunt.

GENERAL STATEMENT

Mr. Chairman and members of the committee, the appropriation "hospitals and medical care, Public Health Service," is primarily concerned with direct patient care for various groups of people to whom the Congress has from time to time extended eligibility for medical care by the Federal Government. The Marine Hospital Service, forerunner of the Public Health Service was established under President John Adams in 1798 to provide medical care for American seamen. This function has continued without interruption and American seamen are still our largest single beneficiary group. A recent study indicates that over 80 percent of the seamen treated in our hospitals are employed on oceangoing vessels. This transport of goods and people is an activity vital to the economic well-being of our Nation. Other major groups for whom we provide medical care are officers and men of the United States Coast Guard, Coast and Geodetic Survey, Public Health Service, and for Federal employees injured in line of duty. In addition, the Public Health Service takes care of patients with leprosy and persons who are addicted to narcotic drugs. Reimbursements to the Territory of Hawaii for the care of leprosy patients in the islands are also made from this appropriation.

The "Hospitals and medical care" appropriation provides for resource and utilization studies in the critically short field of nursing. Reimbursable details of Public Health Service officers and the conduct of Federal employee health programs on a reimbursable basis are also represented in this program.

Medical care to our eligible patients is provided in 16 hospitals, 25 outpatient clinics, and in the private offices of about 100 physicians with whom we have contracts.

Our activities in the treatment of leprosy and drug addiction are worthy of particular mention.

Funds from this appropriation provide for the operation of our hospital at Carville, La., the only Government hospital in the United States were a man, woman, or child who has contracted leprosy may be assured of admission and proper treatment. At Carville we have not only a medical problem but a social one because of the stigma still attached to leprosy by many people. We have developed at Carville the best treatment of leprosy known in all of history, the sulfone drugs. These are not a cure, but do arrest the progress of the disease in many cases. Special problems are attached to the operation of this hospital. Our patients at Carville develop diabetes, heart disease, kidney ailments, mental and nervous disorders just as other people do in the general population. We must, therefore, provide the specialized skills and facilities not only to treat the disease itself but at the same time furnish the manifold services of a general hospital.

We also operate the only Government hospitals that are staffed or equipped to treat addiction to narcotic drugs. These hospitals are at Lexington, Ky., and Fort Worth, Tex. Here again, we have a long and specialized course of treatment. We must first remove the individual's physical dependence on drugs, and then strive to liberate him from the psychological need which is a much tougher proposition. Here too, we must supply the specialized treatment to remove the physiological need and then to give the right psychological treatment in the form of work therapy or vocational training or active psychiatric treatment or a combination of these techniques to armor him against the pressures which are likely to cause readdiction. In these hospitals, too, we must provide general medical and surgical services since the patients cannot be referred elsewhere for the treatment of illnesses which occur while they are being treated for drug addiction.

In summary, the budget before you proposes the continuation of our present facilities with a decrease in total obligations of $217,500 and of $77,500 in appropriated funds. In arriving at this estimate, full effect has been given to the savings resulting from the projected decline in patient load. This estimate also reflects the absorption of an increase in expense of $77,200 which will be required because we must pay more for hospitalization of our patients in other Federal facilities. Other economies reflected in the submission are reduction from the base-year costs of travel, transportation of things, and full absorption of the effects of a continuing upward trend in average salaries. In short, this is a minimum statement of the amount necessary to continue the present installations and the present level of medical care and has been prepared in the light of the current need for reduction of Federal expenditures.

BUDGET REQUEST

Mr. BUSBEY. Dr. Hunt, your request this year is for $33,040,000, which is a reduction of $60,000 from the appropriation for 1954.

Dr. HUNT. That is correct, sir.

Mr. BUSBEY. For how much did you ask the Bureau of the Budget?

Dr. HUNT. $33,920,000.

Mr. BUSBEY. For what would the additional money have been used, if the full request to the Bureau of the Budget had been allowed?

Dr. HUNT. Primarily the reduction represents a difference of staffing level. Under the additional amount requested of the Bureau of the Budget, we would have been able to staff more adequately all of our hospitals and clinics. We would also have been able to take a larger bite out of our deficiency in equipment. I think those are the principal areas in which we have had to contract.

STUDIES IN FIELD OF NURSING

Mr. BUSBEY. I notice starting at the bottom of page 1 of your statement you indicate you are conducting studies in the field of nursing. Do those studies involve statistical analyses of the nursing situation?

Dr. HUNT. They involve various aspects of the whole question of nursing. There are several specific projects for the coming fiscal year which are planned. There will be a number of State surveys of nursing needs and resources which are conducted at the request of the States to assist them in appraising their own needs in the field. These studies will have a certain amount of statistical component.

Second, the Division will study the utilization of nurses assigned to outpatient departments, to find out whether some of their duties might be performed equally well and more economically with other personnel. With nurses in such short supply, it is increasingly important to make sure that professional nurses are used, as nearly as possible, for professional duties only.

This type of study will assist in evaluating the degree to which other types of less highly trained persons should be used in outpatient departments.

A somewhat similar study will be an evaluation of practical nurses as against nursing aides. Practical nurses, in modern terminology, are nurses who have had at least a year of specific training. Nurses' aides have less training and the question there, too, is to what degree you can get along with the less highly trained people.

OTHER STUDIES

Mr. BUSBEY. This is a subject I went into rather thoroughly last summer when I visited many hospitals throughout the country, because the shortage of nurses gives me a great deal of concern. I found a great many of the States had made very comprehensive surveys on this subject and the one that stands out more vividly in my mind than any other is the State of Indiana. They have done a masterful job as a State organization in their public health department.

Dr. HUNT. That is right.

Mr. BUSBEY. Isn't the Division of Public Health Methods in the Surgeon General's Office doing some statistical studies of the nursing situation?

Dr. HUNT. As far as I know, they depend entirely upon the Division of Nursing Resources for advice, counsel, and assistance in any nursing studies that they undertake. In other words, they do not have any staff for this purpose.

Mr. BUSBEY. What about the Division of Hospital Facilities? One of the things I expect to go into, when we have the Division of Hospital Facilities before the committee tomorrow, is just what they have done to take into consideration the nursing problem and the staffing problem of hospitals, because it goes hand in hand, in my opinion, with construction.

Dr. HUNT. Yes, sir. Here, again, the Division of Nursing Resources has worked very closely with the Division of Hospital Facilities. Their activities are complementary rather than overlapping.

Mr. BUSBEY. A few weeks ago we were told that the Bureau of Labor Statistics in the Department of Labor had requested the Bureau of the Budget for funds to make a study in connection with the nurse shortage. It bothers us to see so many different people and agencies of Government working in these various fields.

Dr. HUNT. It is a very large field, and a very large problem. Our feeling, I think, has been that if anything, additional attention is necessary because there are still many unsolved problems in the field of nursing.

Mr. BUSBEY. It seems like everybody is paying attention to it and nothing concrete is being done about it. We are faced with statistics and data with regard to the nursing shortage but no one seems to have any of the answers, including the nurses' association and the hospital association.

Dr. HUNT. No one has any final answers yet.

Mr. BUSBEY. I do not see how they are going to get any final answers if everybody is going to go off on a tangent working in their own field. It is really alarming to me.

CONSOLIDATION OF ACTIVITIES

Dr. HUNT. It is exactly for that reason that we feel the Division of Nursing Resources of the Public Health Service is an excellent focal point. It does work very closely with the American Hospital Association and with the two nursing organizations to make sure, as far as one can make sure, that needed explorations are undertaken, but that overlapping explorations are not undertaken.

Mr. BUSBEY. All right. Along that line, tell the committee, if you will, please, specifically what you have done to consolidate all of these into this one division, so that we can appropriate money for these very important studies and know that other agencies of Government aren't going to be spending more money for the same sort of thing.

Dr. HUNT. We can answer, as far as the Public Health Service is concerned, Mr. Chairman. We are not able to tell the Department of Labor what it should or should not have.

Mr. BUSBEY. We have a little to say about that, as far as recommending funds is concerned.

Dr. HUNT. Yes, indeed.

Within the Public Health Service we can assure you that all nursing studies are concentrated in the Division of Nursing Resources.

The other divisions, such as the Hospital Facilities Division, and the Division of Public Health Methods, which do studies impinging on nursing, utilize the Division of Nursing Resources as their consultant, and if staff is necessary they use the staff of that Division to do the work.

Mr. BUSBEY. Do you feel that, in your Division, you are competent to do all of the necessary work that is required to be done in order to bring all of the information together to give the Public Health Service and the public at large all of the information that is necessary to get the true picture of what the situation is and what is necessary to overcome the problem?

Dr. Hunt. The present staff of the Division, Mr. Chairman, is very small. To do everything that your question implies would almost certainly involve an increase in the size of that staff.

The type of competence which we have is, I think, adequate to do the job you ask about.

COST OF STUDIES ON NURSING SHORTAGES

Mr. BUSBEY. What has been the cost by fiscal year for the past 10 years of all studies on nursing shortages made by the Public Health Service?

Dr. HUNT. We do not have that immediately available, Mr. Chairman. May we supply it for the record?

Mr. BUSBEY. If you will, please.

(The matter referred to is as follows:)

Cost by year for past 10 years for all Public Health Service studies in nursing shortage area

Year	*Funds expended* [1]
1944, 1945, 1946, 1947, 1948	0
1949	$15,100
1950	27,000
1951	20,000
1952	17,000
1953	11,000
1954	14,500

[1] During 1944 and 1945, the Public Health Service was operating the wartime emergency Cadet Nurse Corps program and assigning public health nurses to critical areas. In 1946, 1947 and 1948 this program was gradually brought to a close. A continued shortage of nurses after the war had not been anticipated, but by 1949 it became apparent there were not enough nurses for the necessary needs, and that the problem of adequate nursing resources could not be solved by private and professional organizations without assistance from the Public Health Service. A small division was created to deal directly with this problem. The amounts shown for fiscal years 1949–54 represent a portion of the total cost of the operations of the Division of Nursing Resources. No other Public Health Service funds have been expended in studies of the nursing shortage area.

The Division of Nursing Resources is the only Division of the Public Health Service making studies designed to relieve the nursing shortage. The Division concentrates on finding ways to solve these problems. Through the State nursing surveys specific problems of nurse shortage have been uncovered State by State and are now being attacked by nursing and allied health professions and representative citizen committees in State and local communities.

The Division has collected data and analyzed it to show relationships of nurses in various fields of activities to the populations they service in various geographical locations. These data gathered from many sources have been published in collaboration with the Division of Public Health Methods as the Health Manpower Source Book: Section 2, Nursing Personnel. This is one of a series of manpower source books being published by the Division of Public Health Methods. (In this case as in all others when the Division of Public Health Methods is called

upon to supply information on nursing they ask the Division of Nursing Resources for the data.)

RESULTS OF STUDIES

Mr. BUSBEY. What has resulted, in the way of a reduction of the nursing shortage, from the expenditures for this purpose in the past 10 years?

Dr. HUNT. There are, I should say, two principal areas in which benefits have accrued to the public.

First, there is the matter of better training of the professional nurses and their subordinates and assistants to do a competent job with the patients.

Mr. BUSBEY. Now, let us not be so general. Let us be more specific. Just what has been done in that field?

Dr. HUNT. There has been a considerable increase of emphasis on the training and utilization of head nurses.

The American Hospital Association and the Public Health Service have published manuals which permit hospitals themselves to train their head nurses so as better to utilize the skills not only of that group, but of the staff nurses and of the assistant practical nurses and nurses' aides.

The second area in which there has been a great advance in the last 10 years has been a greater utilization of the subordinate types of personnel who can be provided with less training and less expensive training than is required for professional nurses.

The status of the practical nurse 10 years ago was very indefinite, and by and large they were looked down upon as people who had no place in a hospital setting. Nowadays, due to various studies, studies in which the Public Health Service has participated to a large extent, the position of the practical nurse is well established and hospitals can take on a certain number of people with less training than the professional nurses possess and do a good job taking care of patients.

RESULT OF GRADUATE NURSES GOING INTO INDUSTRY

Mr. BUSBEY. What has been the result of more graduate nurses going into industry in the last few years, compared to the number who went into industry, say, 10 years ago, or 15 years ago?

Dr. HUNT. Well, industry has become extremely health conscious, and it is now almost routine for any good sized plant to have a health unit. In many cases that is staffed entirely by nurses. In a few cases they have a doctor full time, but in most cases they probably have a doctor on call, but with the day-by-day work done by nurses.

That has taken a certain number of nurses into the industrial field.

Mr. BUSBEY. Do you have a table showing the number of nurses whom industry has taken year by year during the past 10 calendar years?

Dr. HUNT. I think we can supply that, Mr. Chairman.

Mr. BUSBEY. I think it would be a very interesting study, because from my conversations on the subject I have gained the impression that industry is taking an important percentage of nurses compared to the percentage it took some years ago.

(The matter above referred to is as follows:)

Number of industrial nurses in the United States, 1941–52

	Number of industrial nurses		Number of industrial nurses
1941	[1] 5,512	1947	9,240
1942	[2]	1948	9,475
1943	11,220	1949	10,530
1944	[2]	1950	10,665
1945	13,866	1951	11,756
1946	8,907	1952	[3] 10,976

[1] This represents 1.9 percent of the total number of active nurses (284,159). (Figures were not available for computation of percentages for other years.)
[2] No survey made in these years.
[3] This represents 2.9 percent of the total number of active professional nurses (375,000).

Source: U. S. Department of Health, Education and Welfare, Public Health Service, Division of Occupational Health. Number of Professional Registered Nurses Employed Full Time in United States Industries by State and Territory; Report for Jan. 1, 1952. Washington, D. C., Public Health Service, 1952

STUDIES MADE BY OTHER ORGANIZATIONS

Mr. BUSBEY. What studies have been made by other organizations, either Government or private, that you know of?

Dr. HUNT. Studies of one sort or another are going on almost constantly, Mr. Chairman. We would have to do a special compilation to give you the exact titles of them.

Mr. BUSBEY. Are you familiar with the names of the organizations that have made them?

Dr. HUNT. The American Hospital Association has just done the study on nurses' aides that I mentioned a moment ago.

The nursing organizations have done a variety of studies. I do not at the moment happen to think of another one specifically. We can supply them for the record, if you wish, Mr. Chairman.

Mr. BUSBEY. If you will, please.

Dr. HUNT. Yes, sir.

(The matter referred to is as follows:)

The following organizations have done the studies listed:

A. American Nurses Association:
1. Inventory of Professional Registered Nurses,[1] 1949.
2. Inventory of Professional Registered Nurses, 1951.
3. Spot Check of Current Hospital Nursing, 1951.

Studies supported by the American Nurses Association:
1. Nursing Practice in California Hospitals, volume I, California State Nurses Association.
2. A Study of Nursing Functions in 12 Hospitals in the State of New York, New York State Nurses Association.
3. Nursing Activity Study, Charles T. Miller Hospital, St. Paul, Minnesota State Nurses Association.
4. A Study of Nursing Functions, Washington State Nurses Association.
5. The Functions of the General Duty Nurse in the General Hospital, a preliminary report. Arkansas State Nurses Association.
6. Activities of Registered Nurses in Small Kansas Hospitals. Kansas State Nurses Association.
7. Role Relationships Among Nurses and Between Nurses and Nonnursing Personnel in Hospitals. Alabama State Nurses Association.
8. Nursing Functions Study, Ohio State Nurses Association.
9. Studies conducted at the Boston Psychopathic Hospital, mimeographed reports and reprints, Massachusetts State Nurses Association.

B. American Medical Association:
1. Hospital Service in the United States, an annual tabulation of hospital data including nurse supply.

[1] The division of nursing resources gave consultation on the preparation of the questionnaire and analysis of responses.

C. Health Resources Advisory Committee made an estimate of supply and need of all health personnel including nurses.[2]

D. President's Commission on Health of the Nation.

1. Building America's Health, volume 3, a statistical appendix contains data on nurse supply.[2]

E. Congresswoman Bolton:

1. Survey of Health Care Situation in America, a report to Congress based on almost 4,000 replies to a questionnaire on nurse shortage, February 24, 1954. Published subsequently in Hospitals, volume 28, April 1954, page 83.

F. United States Department of Labor, Bureau of Labor Statistics:

1. The Economic Status of Registered Professional Nurses, 1946–47,[3] Bureau Bulletin No. 931, also House Document No. 480, 80th Congress, 2d session, Government Printing Office, 1948.

G. Universities and advanced students in them have done a few local studies on various aspects of nurse supply:

1. University of Pittsburgh, volumes I–IV. Nursing Service Study, 1953.
2. University of California School of Nursing. A Functional Analysis of Nursing Service, 1951.

H. American Hospital Association:

1. Closed Bed Survey, Hospitals, August 1950.
2. Job Vacancies in Hospitals, Hospitals, volume 26, June 1952, table F, page 25.

I. Private institutions:

1. Marion Wright, "The Improvement of Patient Care." 1954 Harper Hospital Study.

J. Modern Hospital (magazine):

1. Nursing survey of 99 hospitals, September 1951.

The division of nursing resources is informed of the major studies being conducted in the nursing field. It has helped to get many of them started and sees this as one way to expand the usefulness of its small staff. A problem as complex as the present problem of nursing service shortage must be attacked by many persons from many points of view.

PATIENT LOAD OF MARINE HOSPITALS AND REIMBURSEMENTS

Mr. BUSBEY. I think at this point we will put into the record the tables on pages 4 and 5 of the justifications which show a breakdown of the patient load at your hospitals and an analysis of reimbursements.

(The matter referred to is as follows:)

[2] The division of nursing resources supplied most of the data for these estimates.

[3] The American Nurses Association has asked the Bureau of Labor Statistics to repeat this study as conditions have changed drastically in the past 5 years, and the Bureau of Labor Statistics is in the best position to make this particular type of study.

Average daily patient load by beneficiary group

	Actual, 1953	Estimate, 1954	Estimate, 1955
All beneficiaries	6,316	5,944	5,885
Nonreimbursable	5,346	5,262	5,275
Seamen (American and Government)	2,597	2,555	2,550
Narcotic addicts	1,503	1,440	1,470
Patients with leprosy	387	393	393
Coast Guard	390	390	385
Bureau of Employees' Compensation	303	320	315
Other	157	164	162
Reimbursable	970	682	610
Veterans	662	375	318
Immigrants	22	23	20
Armed Forces	60	54	52
Foreign seamen	103	104	100
Dependents	100	102	99
Other	23	24	21

A comparative statement of reimbursements for 1953, 1954, and 1955 is shown below:

	Actual, 1953	Estimate, 1954	Estimate, 1955
Veterans	$2,842,230	$1,334,581	$1,141,750
Foreign seamen	536,755	559,910	620,500
Armed Forces	174,541	163,505	160,950
Immigration	116,436	123,826	124,100
Dependents	63,760	65,198	63,280
Other	96,069	112,208	108,375
Outpatient visits	40,599	36,472	36,745
Total, operation of hospitals	3,870,390	2,395,700	2,255,700
Total, operation of health units	296,584	312,300	312,300
Total, personnel detailed to other agencies	1,124,935	1,255,000	1,255,000
Total reimbursements	5,291,909	3,963,000	3,823,000

PATIENT LOAD BY YEARS AND INDIVIDUAL HOSPITALS

Mr. BUSBEY. Now, I have a table you prepared for the committee showing the patient load, and the outpatient visits for each of the Marine hospitals for the fiscal years 1949 through 1953. I wonder if you could bring that up to date with the 1954 estimate, and put that in the record at this point? You can readily supply estimates for the fiscal year 1954?

Dr. HUNT. Yes, sir. Do you want to have it hospital by hospital?

Mr. BUSBEY. Yes; the same as it is in this table.

Dr. HUNT. Do you want me to read it or supply it for the record?

Mr. BUSBEY. Just supply it for the record, please.

Dr. HUNT. Yes, sir.

(The matter referred to is as follows:)

Public Health Service, hospitals and medical care, patient load and outpatient visits, hospitals open as of Jan. 1, 1954—fiscal years 1949–54

	Bed capacity[1]	Fiscal year 1949		Fiscal year 1950		Fiscal year 1951		Fiscal year 1952		Fiscal year 1953		Fiscal year 1954[2]	
		Patient load	Outpatient visits	Patient load	Outpatient visits	Patient load	Outpatient visits	Patient load	Outpatient visits	Patient load	Outpatient visits	Patient load	Outpatient visits
General hospitals:													
Baltimore	353	369	(3)	363	66,337	341	60,437	367	64,752	322	64,689	320	67,000
Boston	295	254	(3)	257	32,760	238	39,432	246	44,625	214	41,478	230	41,250
Chicago	197	186	(3)	178	20,305	183	22,314	153	20,737	144	19,139	140	17,000
Detroit	166	218	(3)	211	16,230	204	19,233	204	21,950	133	19,859	160	17,000
Galveston	158	165	(3)	137	19,103	138	20,885	138	25,200	145	26,194	130	27,500
Memphis	134	103	(3)	119	7,855	100	6,729	107	6,613	98	7,754	95	9,250
New Orleans	405	375	(3)	397	51,516	361	49,039	377	62,795	352	62,574	337	60,000
Norfolk	272	243	(3)	239	38,134	214	37,768	246	39,929	234	37,393	197	38,000
San Francisco	445	399	(3)	375	67,505	407	82,462	381	85,488	338	84,643	390	87,000
Savannah	180	131	(3)	115	11,110	135	14,489	133	16,988	121	11,911	105	11,000
Seattle	368	404	(3)	399	51,435	372	53,480	366	59,799	317	65,611	300	67,000
Staten Island	974	730	(3)	717	90,543	746	93,025	777	98,165	748	87,858	695	93,500
Subtotal, general hospitals	3,947	3,577	(3)	3,507	472,823	3,439	499,293	3,495	547,041	3,166	529,103	3,099	535,500
Neuropsychiatric hospitals:													
Fort Worth	1,002	888	(3)	915	----------	951	----------	775	----------	815	----------	850	----------
Lexington	1,340	1,101	(3)	1,293	----------	1,375	----------	1,251	----------	1,317	----------	1,265	----------
Subtotal neuropsychiatric hospitals	2,342	1,989	(3)	2,208	----------	2,326	----------	2,026	----------	2,132	----------	2,115	----------
Tuberculosis hospital: Manhattan Beach	353	262	(3)	272	2,886	300	3,505	334	3,504	338	3,769	340	4,350
Carville Leprosarium	450	393	(3)	388	342	391	90	407	69	384	58	390	150
Grand total all hospitals	7,092	6,221	(3)	6,375	476,051	6,456	502,888	6,262	550,614	6,020	532,930	5,944	540,000

[1] Setup as of Dec. 9, 1953.

[2] Estimated.

[3] Not available. Only treatments and examinations computed for fiscal year 1949.

DECREASE IN OCCUPANCY OF GENERAL HOSPITALS

Mr. BUSBEY. Now, I notice that there has been a continuing drop in the occupancy of the general hospitals, from about 90 percent in 1946 to 80 percent in 1953, and that Savannah was operating at less than 70 percent of capacity in 1953.

How low do operations need to go before you consider closing a hospital?

Dr. HUNT. There is no set percentage, Mr. Chairman.

We would, I think, turn it around and say we would continue the operation as long as there was sufficient patient load to justify the economical operation of the hospital.

Now, that could conceivably be a relatively low percentage, as far as the hospital as a whole is concerned.

If we could economically close off parts of the hospital and simply maintain them in standby condition, it might be perfectly economical to continue operating with a relatively small percentage of the potential total. It would depend on each hospital individually.

NEW AMBULANCES

Mr. BUSBEY. I notice that you are asking for authority to buy two new ambulances. What happened to the ambulances in the hospitals that have been closed?

Dr. HUNT. In each case but one we have established an outpatient clinic in the same city where we closed a hospital. As far as I know, the ambulances have either been kept for the use of the clinic, transferred to one of the other hospitals, or declared unserviceable. I do not have the exact figures. If you would like to have those we can get them for you.

Mr. BUSBEY. Then you have given full consideration to any possibility of transferring 2 of these ambulances to where you need the 2 new ambulances?

Dr. HUNT. We have utilized all of the equipment of the closed hospitals to the greatest possible extent, and, while I do not recall specifically what has been done with the ambulances, I know that all of the property has been very carefully looked at.

(The following was subsequently furnished:)

Six hospitals were closed during fiscal year 1953, at Portland, Maine; Cleveland, Ohio; Kirkwood, Mo.; Mobile, Ala.; Fort Stanton, N. Mex.; and San Juan, P. R. The hospitals at Cleveland and Kirkwood had 1 ambulance each; the other 4 hospitals had no ambulances. The ambulance at Cleveland was a 1940 model which was declared unserviceable and sold for scrap on October 21, 1953. The ambulance at Kirkwood was a 1941 model which was transferred to the Department of Justice for use at the Medical Center for Federal Prisoners, Springfield, Mo., on June 25, 1953.

Mr. BUSBEY. Where are these two ambulances proposed to be used?

Dr. HUNT. One at Carville, La., at the National Leprosarium, and the other at the New York Outpatient Clinic, at 67 Hudson Street.

In both cases we have a rather special problem in transporting patients.

Mr. BUSBEY. What has happened to all of the ambulances that were in the hospitals that were closed by the Army in the last year?

Dr. HUNT. I do not know, sir.

Mr. BUSBEY. There must have been dozens of good ambulances at hospitals closed by the Services, and it does seem to me that before you put in a request for two new ambulances you certainly ought to explore the possibilities of getting ambulances from such a source. I think there has been too much buying of new equipment in all of the departments in recent years.

(The following statement was subsequently submitted by PHS:)

In the absence of authority in the appropriation language for fiscal year 1954 for the Division of Hospitals to replace passenger vehicles, we have not been able to obtain by transfer any ambulance from other Federal agencies. This prohibition is extended to transfers from other agencies by the following language of Public Law 600, 79th Congress, chapter 774, 2d session, section 16 (A):

"Section 5 of the act of July 16, 1914 (5 U. S. C. 78), is amended to read as follows: 'SEC. 5. (a) Unless specifically authorized by the appropriation concerned or other law, no appropriation shall be expended to purchase or hire passenger motor vehicles for any branch of the Government other than those for the use of the President of the United States, the secretaries to the President, or the heads of the executive departments enumerated in title 5, United States Code, section 1 * * *.

" '(e) The acquisition of aircraft or passenger motor vehicle by an agency by transfer from another department of the Government shall be considered as a purchase within the meaning hereof.' "

If the Congress approves the purchase of two ambulances in fiscal year 1955 we shall explore the possibility of securing them by transfer before considering purchase on the open market.

LEPROSY PROGRAM IN HAWAII

Mr. BUSBEY. Are there any changes with regard to the leprosy program in Hawaii?

Dr. HUNT. No, sir; that is remaining at $1 million.

Mr. BUSBEY. Would you submit for the record the amount of Territorial funds made available for this activity for each of the last 10 years, including 1955, if their legislature has acted on the budget for that year?

Dr. HUNT. Yes, sir.

(The matter referred to is as follows:)

Financial requirements for care in the Territory of Hawaii of persons afflicted with leprosy, fiscal years 1944 through 1955 [1]

Fiscal year	Total requirements	Supplied by the Territory	Supplied by hospitals and medical care	Supplied by other Federal [2]
1944	$640,638	$640,638		
1945	640,639	640,639		
1946	790,554	790,554		
1947	790,554	790,554		
1948	1,128,415	1,128,415		
1949	1,128,416	1,128,416		
1950	1,296,389	1,265,057		$31,332
1951	1,175,292	1,147,579		27,713
1952	1,147,654	1,117,720		29,934
1953	1,109,742	576,491	$500,000	33,251
1954	1,107,714	107,714	1,000,000	
1955	1,132,916	132,916	1,000,000	

[1] Figures furnished by Territory of Hawaii.

[2] Hospitals and medical-care records indicate that these are probably reimbursements for care of veteran patients.

FUNDS ALLOCATED TO BUREAU OF MEDICAL SERVICES

Mr. BUSBEY. I have been examining a table which was furnished to the committee's task force, which shows the salaries budgeted, the gross positions, and annual salaries by organizational locations, and source of funds, for the Bureau of Medical Service for the fiscal year 1955. Would you please furnish a copy of this table for the record at this point?

Dr. HUNT. Yes, sir.

(The matter referred to is as follows:)

Summary budgeted gross positions and annual salaries, headquarters, fiscal year 1955, by organizational locations and source of funds

	Total		Hospitals and medical care (H. and M. C.)		Hospital construction services (BCS)		Foreign quarantine service (FQ)		Dental health activities (DHA)		Salaries and expenses, Public Health Service (S. and E., PHS)	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Office of the Bureau Chief	15	$107,568	6	$46,531	5	$36,582	3	$12,635			1	$11,820
Division of Administrative Management	83	436,135	61	339,460	10	43,140	11	49,375	1	$4,160		
Division of Hospitals	45	280,350	45	280,350								
Division of Hospital Facilities	52	323,631			52	323,631						
Division of Foreign Quanantine	19	102,177					19	102,177				
Division of Dental Resources	20	120,326							20	120,326		
Division of Nursing Resources	19	106,694	19	106,694								
Total, Bureau of Medical Services	253	1,476,881	131	773,035	67	403,353	33	164,187	21	124,486	1	11,820

Mr. BUSBEY. Now, this table shows that the hospital and medical care appropriation is paying for 6 out of 15 positions in the Office of the Bureau Chief, for 61 out of 83 positions in the Division of Administrative Management, for all 45 positions in the Division of Hospitals, and for all the 19 positions in the Division of Nursing Resources.

How was the determination made that this appropriation should pay for all of these positions?

Dr. HUNT. The Division of Hospitals, and the Division of Nursing Resources are supported entirely from this appropriation, and the headquarters staff of those two divisions is, therefore, entirely charged to this appropriation.

In the case of the Office of the Bureau Chief and the Division of Administrative Management, an effort has been made to allocate the costs of those activities among the various appropriations of the Bureau in an equitable fashion, taking into account the amount of work done for the various appropriations.

That can be done with some accuracy in the case of the Division of Administrative Management, since their activities have to do rather specifically with certain aspects of the hospital and medical-care program, the hospital facilities program, the foreign-quarantine program, and so forth.

In the case of the Office of the Bureau Chief the division is based upon the estimate of the relative need by each appropriation for the attention given to it by that Office.

Mr. BUSBEY. Who makes that determination?

Dr. HUNT. Essentially the Chief of the Bureau in conjunction with the Division of Finance of the Service. I suppose you might say that the Surgeon General indirectly participates. It is an agreement of all of the interested groups.

FREE MEDICAL CARE FOR MERCHANT SEAMEN

Mr. BUSBEY. In previous testimony before this committee, we were advised that a study was being made of the question of whether the Federal Government should be financing free medical care for merchant seamen, but that the study had not been completed. Have there been any further developments with regard to this study?

Dr. HUNT. It is still under consideration.

The Secretary has a committee with Dr. Keefer, her special assistant for medical affairs, as chairman, and with representatives on it of the Department of Commerce and the Department of Labor.

To the best of my knowledge the committee has not yet reached any decision, and as far as we know the position of the executive branch, therefore, remains as the Secretary expressed it last September. As long as the law is on the books we will continue to follow it out.

REIMBURSEMENTS

Mr. BUSBEY. I have been advised that you estimate the average daily reimbursable patient load would total 610 patients.

Your justifications on 9–1–A show that the anticipated reimbursements for the operation of hospitals is approximately $2,255,700 for the fiscal year 1955.

It seems that if we calculated the anticipated reimbursements at the rate of $17 per day for an average daily load of 610 reimbursable patients, the annual reimbursement should be approximately $3,785,050, or about $1,500,000 more than you show in your justifications.

Will you please tell the committee how you calculated your reimbursement figures?

Dr. HUNT. Yes, sir.

We have an anticipated total average daily patient load of 290 in the hospitals other than the neuropsychiatric hospitals. That will include 50 veterans, 10 from the Armed Forces, 20 immigration patients, 100 foreign seamen, and 15 others. Those 195 patients are patients for whom we are reimbursed at the rate of $17 a day. There are 95 dependents at $1.75 a day.

There are also expected to be in those general hospitals outpatients visits for which we will be reimbursed in the amount of $36,745.

This gives us, for this group of hospitals, a total of $1,307,400.

In addition to that we have in the neuropsychiatric hospitals and anticipated average daily patient load of 320.

There will be an average daily patient load of 268 veterans at Fort Worth for whom we are reimbursed at the rate of $8.50 a day. There will be an average of 15 Army patients at Fort Worth, for whom we are reimbursed at $6.45 a day, and an average of 1 voluntary addict, full-pay patient, at Fort Worth at $7 a day, and an average of 4 dependents at $1.75 a day.

In Lexington, we anticipate 27 members of the Armed Forces on the average at a rate of $6.45 a day, 5 voluntary pay patients at a rate of $7 a day. This makes a total of $871,900 at Fort Worth, and $76,400 at Lexington, and a total for the 2 neuropsychiatric hospitals of $948,300, which, added to our general hospital total of $1,307,400, gives us the total estimate of $2,255,700. The principal point is, of course, that half of our patients——

Mr. BUSBEY. Are not on the $17 a day rate?

Dr. HUNT. Yes; they are at a rate much below the $17 rate.

SERVICES FOR COAST GUARD

Mr. BUSBEY. Have you ever considered requesting legislation requiring the Coast Guard to reimburse you for services performed for them, as is now required of the Veterans' Administration and the Armed Forces, for example?

Dr. HUNT. That was considered some 3 or 4 years ago. It was decided at that time that nothing would be gained and that confusion would be added by requiring the Coast Guard to go in for an appropriation and then reimburse us. That, of course, is a policy matter that could be reevaluated at any time. It has been considered and decided against.

POSSIBLE DUPLICATION OF ACTIVITIES WITHIN PHS

Mr. BUSBEY. In the Washington office is there not considerable duplication of functions between the Bureau of Medical Services and the Office of the Surgeon General? For instance, you have a Construction and Maintenance Branch and a Financial Management Branch

while the Office of the Surgeon General has a Division of General Services and a Division of Finance to cover these areas. What is the situation with regard to that?

Dr. HUNT. The divisions in the Office of the Surgeon General are primarily staff or advisory divisions. They have a certain amount, of course, to do with operations, particularly in the field of budget and finance, but even in that field they are not staffed to get into the details of operations.

Our Construction and Maintenance Branch in the Bureau of Medical Services is in close contact with all the hospitals, the outpatient clinics, and the quarantine stations, and is doing the day-by-day work of keeping up these stations so that they will not deteriorate. I am sure that function could be carried out at another level but I am also sure additional people would have to be put on, because here, again, the Construction and Maintenance Branch does not duplicate what is done in the Office of the Surgeon General. They work together but I do not think they could be consolidated with an appreciable saving of personnel.

Mr. BUSBEY. To your knowledge, has any study been made in an effort to consolidate these functions?

Dr. HUNT. We are in a sense studying all the time, Mr. Chairman.

Mr. BUSBEY. I mean specifically on this one problem.

Dr. HUNT. I do not know that there has been any specific study of this problem.

Mr. BUSBEY. Dr. Dearing, do you know of any thought that has been given to this question specifically?

Dr. DEARING. Five years ago, approximately, we established a Committee on Organization in the Surgeon General's Office, of which Dr. Scheele appointed me Chairman, and we had top-level people from each of the bureaus and we spent over a year in reviewing the organizational structure of the Public Health Service in relation to operations, and we did go into this type of problem as well as many others, and we studied and undertook, in the first place, to make some better definition of the responsibilities and to assure ourselves that the functions were properly divided and understood and were not duplicated.

It was our conclusion that the staff work of these divisions of the Surgeon General's Office was necessary and was not duplicated in the Bureau; and we established at that point a principle which has been guiding us ever since, and that is that the service functions of maintenance and the fiscal operations and such like should be carried on as close to the program's operation as possible rather than to have them centralized in the Surgeon General's Office.

The things that are done operationalwise in our own office are those which by that criterion still seem to be done better centrally than by the Program Divisions. We do audits, for example, from Mr. Harlow's office, and there are certain of the fiscal operations, ledger accounts, I believe, which are done centrally. On the other hand, in the Division of Hospitals, some of the hospitals are doing accounting for the entire Service. It is not something that just grew up; it is something that has been rather carefully worked out and planned and put into operation.

Mr. BUSBEY. I am sure you gentlemen who are in charge of those operations are in a better position to make these determinations than

any chairman of this committee would be, but I like to explore these possibilities so that they might at least be given thought from year to year.

Dr. DEARING. We consider and accept it as your job to do so, and we try to do the same. It helps to keep reminding ourselves of this kind of problem because things do grow up if they are not watched.

PHARMACEUTICAL BRANCH

Mr. BUSBEY. I notice in your Pharmaceutical Branch you have only two positions. What is done in this Branch that cannot be done in the Division of General Services in the Surgeon General's Office?

Dr. HUNT. This Branch has been developing a professional pharmacy program for and in our hospitals. The field of drug therapy is extremely complex and getting more so every year. If we are going to have an efficient, economical operation, we must have trained pharmacists in the pharmacies of our various hospitals and coordination among the hospitals.

One of the activities of this branch has been the development of pharmacy committees in each of our hospitals, made up of the principal chiefs of services, the doctors, plus the pharmacists, to pass upon any pharmaceutical activities of the hospital. They determine, for example, what drugs should be stocked in the hospital pharmacy. Obviously if we are going to have an economical operation we must have a certain amount of control. As an example of what I mean, you read 2 years ago the publicity which attended the discovery of the use of nicotinic acid derivatives now known as isoniazid. There are 10 drugs which have been marketed, all of them isoniazid chemically but with different brand names. It is obvious if we permit one physician to come along and have the pharmacy stock one brand and another physician another brand, and so on, we are unnecessarily stocking that drug. We do not feel we can dictate from here what drugs the hospital should stock. We do feel that a pharmacy committee of this sort is a proper mechanism by which each hospital determines what shall go in its pharmacy.

I can well remember in one of our hospitals several years ago going down to the cellar stockroom and seeing hundreds of dollars' worth of drugs that were just in storage because the current staff at that hospital did not use those particular drugs. The previous staff had used them. The new staff came along and put them in the basement. This is the sort of thing we are trying to avoid. I think it is not stretching it to say that the cost of this branch has probably been almost, if not completely, paid for in dollar savings on drug supplies, but the important thing is that it has developed a first-rate pharmacy program in our hospitals.

Mr. BUSBEY. In your Division of Hospitals a number of the branches have only 1 or 2 employees. It seems to me it would be rather difficult to justify this organizational setup, particularly when similar personnel are in the Office of the Surgeon General. Would you comment on that situation, Doctor?

Dr. HUNT. I am trying to think where we have a duplication in the Office of the Surgeon General. Do you mean in nursing?

Mr. BUSBEY. Our task force that we had studying these operations, said in their report to the committee:

In the Division of Hospitals, a number of branches have only 1 or 2 employees, with the largest being the Office of the Assistant Chief, with 8 employees. It seems difficult to justify a branch designation for only a chief and a clerical assistant, particularly when it appears that the function is another layer of responsibility between the Office of the Surgeon General and the field installations.

Dr. HUNT. Possibly, Mr. Chairman, I can clarify that by describing what our branches are supposed to do in the headquarters office.

Mr. BUSBEY. I might say the next paragraph of the report goes into it a little further by stating:

As stated in the 1954 task force report, there appears to be a duplication of function between the Division of Nursing Resources, Division of Dental Resources, and the Division of Public Health Methods, Office of the Surgeon General. It is the opinion of this task force that consideration should be given to transferring the Division of Nursing Resources and the Division of Dental Resources to the Division of Public Health Methods in order to assure economical operations and prevent duplication of analyses and investigative studies.

Dr. HUNT. On that score I think Dr. Dearing would be more qualified than I to comment.

Mr. BUSBEY. Dr. Dearing.

Dr. DEARING. Well, as I believe Dr. Scheele said in his testimony before the committee when he opened these hearings, these three units which you mentioned are, to be sure, working in the same types of problems, but I can assure you, even as with the management services which we were discussing a moment ago, they do work together and collaborate and do not duplicate each other. Both the Division of Nursing Resources and the Division of Dental Resources use the Surgeon General's Division of Public Health Methods. By the same token, the Division of Public Health Methods is available and needed for the Surgeon General directly to advise him on other things than these matters of the overall statistical investigations of the Public Health Service, as an example. These two Divisions in the Bureau of Medical Services are working on nursing and dental problems in the part of the Service where the operations of nursing services and dental care go on, and we feel that it works better this way than it would be to pull them into the Office of the Surgeon General, build up our overhead, give us more of a job of direct supervision of these activities, and still have them to go over and to work but not be a part of the organizational structure of the Bureau where the large part of the work is done.

Mr. HARLOW. Might I add to Dr. Dearing's remarks that we had the Division of Nursing Resources in the Surgeon General's Office, and the Senate committee, in reporting on the 1953 bill, made this statement in respect to it:

The next activity, "Development and coordination of nursing resources," although very small and believed by the committee to be of major importance because of the current shortage of nurse power, might well be undertaken in the Hospital Division in coordination with the assistance-to-States program. The problem is investigated, too, in connection with the hospital construction program.

It was after that comment by the Senate committee that the situation was looked into again and this transfer of function made together with transfer of money in the 1954 budget which was presented to this committee. So your task force is recommending something, apparently, that is directly contrary——

Mr. BUSBEY. The task force is not recommending it. The task force does not recommend anything. They bring things to the atten-

tion of the committee. It is the committee which does the recommending.

Mr. HARLOW. I beg your pardon for the inept remark that I made.

EFFECT OF BUREAU OF THE BUDGET ACTION

Mr. FOGARTY. Did I understand you to say the Bureau of the Budget cut you over $800,000.

Dr. HUNT. In direct appropriation, yes.

Mr. FOGARTY. How did that affect your program?

Dr. HUNT. There is a net difference of $646,000 between what we submitted to the Bureau of the Budget and what is presented to you today because they did increase our reimbursements by $234,000.

A cut of over $600,000 in our program for the next fiscal year will involve additional economies beyond what we have already had to make. We hope we will not have to take such drastic action as to close additional hospitals but we will have no cushion.

Mr. FOGARTY. If you get any further cuts does that mean additional hospitals will have to be closed?

Dr. HUNT. If we have a further cut we will have to reduce services in some way other than cutting our existing hospital staffs. We have cut our existing hospital staffs just as far as we feel it is safe to do and any additional cut would mean either closing additional hospitals or reducing services given to seamen outside of our own facilities or in outside contract hospitals.

PROGRAM CHARGE RE WORK FOR COAST GUARD

Mr. FOGARTY. On page 8 of the justifications you say a decrease in requirements of 6 positions would result from the removal of Coast Guard vessels from the North Atlantic Weather Patrol. I was of the opinion that some of that service had been restored.

Dr. HUNT. Yes, sir. After this budget was prepared the determination was made that the Coast Guard would continue to staff 4¾ weather stations in the North Atlantic and those ships will require doctors.

Mr. FOGARTY. How much will that increase your budget?

Dr. HUNT. We estimate it will require four physicians at a cost of $29,000.

Mr. FOGARTY. So because of a change through no fault of yours, but some change dictated by a higher echelon in the Government, it means you will man those 4¾ weather stations at a cost of $29,000?

Dr. HUNT. That is correct.

Mr. FOGARTY. Do you have to supply anything else in addition to that?

Dr. HUNT. Not for that function, no sir.

CALCULATION OF REIMBURSEMENTS

Mr. FOGARTY. In this task force report, on page 1, there is what seems to me a pretty serious charge against you people when they say:

> There is an inconsistency between the average daily patient load of 610 extended at the reimbursement rate of $17 per day which totals $3,785,050 and the amount of reimbursements, $2,255,700, which the Service expects to receive according to budget justifications. This difference is approximately $1,500,000.

What do you have to say to that? This task force is accusing you of manipulating these funds to the extent of $1,500,000.

Dr. HUNT. About half the hospital days are reimbursed at less than $17.

Mr. FOGARTY. How do they get that information that all these were to be reimbursed at $17 a day?

Dr. HUNT. I do not know. We did not give any such information to the task force.

Mr. FOGARTY. I wonder where they could have gotten that?

Dr. HUNT. The basic interdepartmental rate is, of course, $17 and I would assume somebody else assumed that the rate was uniform. As a matter of fact, all the Lexington and Fort Worth patients are reimbursed at a lower rate.

RESULT IF ALL MARINE HOSPITALS CLOSED

Mr. FOGARTY. If they assumed that in this instance, they might have assumed a lot of other things in this report.

What would happen if you closed all these hospitals? What would we do with the patients?

Dr. HUNT. That poses a very difficult problem.

Mr. FOGARTY. Could they all be transferred to Veterans' Administration hospitals?

Dr. HUNT. I think that would be a very difficult thing to do, Mr. Fogarty. In the first place, the Veterans' Administration hospitals in several of the cities where we have hospitals are sufficiently overtaxed that they have small bed allocations in our hospitals right now, not very large, to be sure, but it suggests that the Veterans' Administration hospitals would have a difficult time absorbing large numbers of our patients. In addition, Veterans' Administration hospitals have small or no outpatient services. As you know, veterans with nonservice-connected disabilities may be treated only in the hospitals, with the result that the Veterans' Administration has not developed extensive outpatient services in connection with their hospitals. A large part of our work is outpatient work.

Furthermore, even if beds were available, I assume that they would not be available in any single hospital. It would mean splitting up our patients among several hospitals, and that, I think, would be an extremely difficult administrative job both for them and for us, with the patients getting much the worst of it.

Dr. DEARING. It seems to me the big thing is that by and large it costs the Veterans' Administration hospitals more to operate than the Public Health hospitals.

Mr. FOGARTY. That was my understanding, that if you transferred them to Veterans' Administration hospitals it would cost the Federal Government more.

Dr. HUNT. That is a valid assumption.

Mr. FOGARTY. I think there was a table put in the record a few years ago indicating that the Veterans' Administration costs were at the top and the voluntary hospitals second and Public Health hospital costs were lower.

Dr. HUNT. Ours are the lowest.

Mr. FOGARTY. The cost in the end would be more if the patients were transferred to Veterans' Administration hospitals?

Dr. HUNT. The cost there would be very much more.

Mr. FOGARTY. It would be very much more. What about any Federal prisoners that you might have in these hospitals?

Dr. HUNT. The only prisoners that we have, Mr. Fogarty, are at Lexington and Fort Worth, where Federal prisoners who are drug addicts may be committed by the sentencing judge for treatment. We do have several hundred in those two institutions.

I would have two comments on that possibility. In the first place, the Bureau of Prisons is already overcrowded in its own institutions with prisoners whom they take care of themselves. In the second place, they do not have any of the specialized facilities for taking care of patients with drug addiction that Lexington and Fort Worth do have.

On the basis of the work at Leavenworth, more than 20 years ago, the decision was made to establish the hospitals at Lexington and Fort Worth for the treatment of prisoner patients, as well as other types of drug addicts.

Mr. FOGARTY. I think that is all, Mr. Chairman.

Mr. BUSBEY. Thank you very much, Doctor.

Dr. HUNT. Thank you, sir.

TUESDAY, MAY 11, 1954.

HOSPITAL CONSTRUCTION

WITNESSES

DR. JOHN W. CRONIN, CHIEF, DIVISION OF HOSPITAL FACILITIES
CHARLES HILSENROTH, EXECUTIVE ASSISTANT, DIVISION OF HOSPITAL FACILITIES
GEORGE WILSON, BUREAU OF MEDICAL SERVICES
DR. JACK MASUR, CHIEF, BUREAU OF MEDICAL SERVICES
DR. W. PALMER DEARING, ACTING SURGEON GENERAL
ROY L. HARLOW, CHIEF FINANCE OFFICER
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
JAMES F. KELLY, BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

GRANTS FOR HOSPITAL CONSTRUCTION

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$75,000,000	$65,000,000	$50,000,000
Prior year balance available	27,597,286	34,370,417	15,000,000
Total available for obligation	102,597,286	99,370,417	65,000,000
Balance available in subsequent year	−34,370,417	−15,000,000	−10,000,000
Unobligated balance, estimated savings	−146,492	−212,156	
Obligations incurred	68,080,377	84,158,261	55,000,000

OBLIGATIONS BY ACTIVITIES

Grants for hospital construction:

1953	$68,080,377
1954	84,158,261
1955	55,000,000

Obligations by objects

11 Grants, subsidies, and contributions:

1953	$68,080,377
1954	84,158,261
1955	55,000,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year:			
Appropriation	$46,581,265	$81,782,137	$103,228,573
Contract authorization	79,504,000	19,700,000	
Obligations incurred during the year	68,080,377	84,158,261	55,000,000
	194,165,642	185,640,398	158,228,573
Deduct:			
Adjustment in obligations of prior years (contract authorization)	104,000		
Obligations transferred to "Grants for hospital construction (liquidation of contract authorization), Public Health Service"	59,700,000	19,700,000	
Unliquidated obligations, end of year:			
Appropriation	81,782,137	103,228,573	75,528,573
Contract authorization	19,700,000		
Total expenditures	32,879,505	62,711,825	82,700,000
Expenditures are distributed as follows:			
Out of current authorizations	32,879,505	62,711,825	82,700,000
Out of prior authorizations			

Mr. BUSBEY. The committee will come to order.

We have for consideration this morning the appropriation for grants for hospital construction, Public Health Service.

Dr. John W. Cronin, Chief of the Division of Hospital Facilities, is with us. We will be very pleased to hear from you at this time, Dr. Cronin.

GENERAL STATEMENT

Dr. CRONIN. Mr. Chairman and members of the committee, Federal payments for hospital survey and construction purposes were first authorized by the Hospital Survey and Construction Act approved August 13, 1946 (Public Law 725, 79th Cong.). This act was amended on October 25, 1949 (Public Law 380, 81st Cong.) and the term of the program was extended through fiscal year 1957 by amendment approved July 27, 1953 (Public Law 151, 83d Cong.).

The purpose of the Hospital Survey and Construction Act, as amended, is to assist the States to provide adequate hospital, clinic, and similar services to all their people. This is accomplished in two successive steps, namely, the survey and planning phase, which is a continuing program activity; and, financial assistance with Federal funds on a matching basis for the construction of hospitals, public-health centers, and related facilities.

Federal funds which are appropriated are allocated to the States on the basis of a statutory mathematical formula, the controlling factors of which are population and per capita income. The amount author-

ized in the basic law for appropriation annually is $150 million. The amount appropriated each year by the Congress determines the scope of the program. Although the annual allocation to each State results from the application of the statutory formula to the funds appropriated, the States individually determine the amount of Federal funds to be made available to the project sponsor. This amount varies from State to State and from a minimum of one-third to a maximum of two-thirds of the cost of the project. The balance of construction money for the project represents the State and local funds utilized in the matching arrangement. Actual Federal payments for construction are made by installments as construction of the project reaches various stages. The first installment is usually made after 25 percent of the project has been completed. Additional installments are made upon request and certification by the State that the project construction is in accordance with the basic contract documents signed by the sponsor and representatives of the State and Federal Government.

Since the program has been in operation the Congress has authorized a total of $607½ million for the construction phase of the program. All of these funds have been allotted to the States. As of January 1, 1954, over $600 million in Federal funds have been allocated to almost 2,200 projects in 53 States and Territories. This, in turn, has been matched by nearly $1¼ billion so that the program is adding 105,000 hospital beds, and nearly 450 public-health centers to our national resources. More than 1,300 of these projects are now open and in operation; 660 are under construction and the remaining projects are in the preconstruction stages. In addition, a small number of State laboratories as well as adjunct and miscellaneous essential hospital facilities, such as equipment, powerplants, nurses' homes, and related projects, have been approved.

I wish it were possible to reflect the achievements of the program in a manner other than referring to the number of projects or number of beds built. Hospital beds are but symbols of hospital services and are not an end in themselves. It would be more satisfactory if I could express accomplishments in terms of furnishing adequate hospital care to many millions of people, particularly those in predominantly rural or isolated communities, and the improved distribution of doctors and nurses in rural areas.

The necessary physical facilities for hospitals, clinics, and local health departments constitute a complicated network. They range from the small rural hospital with limited facilities and doctors' offices attached to great medical centers equipped and staffed to deal with every type of medical need. They include research and teaching hospitals affiliated with universities and medical schools. Apart from normal peacetime needs hospitals, in today's era of defense mobilization, must maintain standby readiness for disaster demands.

There is no single measure for the physical facilities which this hospital network requires. Need in this sense is a medical concept, based on changing standards of modern medical practice. It is that level of service required for the most effective diagnosis and treatment, within scientific knowledge, to restore or preserve good health. It varies from place to place and from year to year, being influenced by

climatic conditions, the age distribution of the population, industrial hazards, and the prevalence and incidence of diseases.

Need for hospital services can be broken down into several primary types of specialized care. For the last quarter century the American Hospital Association and individual experts in planning medical care have regarded ratios between population and the number of hospital beds needed as the principal measure of requirements for hospital service. The Hospital Survey and Construction Act included such ratios as working limits for Federal assistance in providing adequate facilities.

State surveys conducted under this act, as currently reported to the Public Health Service, establish a picture of existing beds and additional requirements, according to these ratios. The total number of acceptable beds in this Nation in all categories of hospital service is now about 1,083,000. As President Eisenhower pointed out in his health message of a few weeks ago, there remains a need for a minimum of 500,000 additional hospital beds throughout the country.

The hospital-construction program has assisted the States and communities to achieve remarkable reductions in hospital bed shortages. This success is notably reflected in the numbers of general and tuberculosis hospital beds which have been added to the Nation's total.

On the other hand, as a result of increasing need, we can report little net gain, percentagewise, in hospitals for mental and chronic illness. Additional factors that also must be considered in estimating hospital bed needs are: (1) The rapid growth of the population, which is now exceeding 2.5 million people annually; and (2) the constant attrition by obsolescence of hospital plans.

It should be stressed, moreover, that national trends and national totals do not reflect the complete picture. Wide differences exist among States and among the major socio-economic regions of the country. Generally speaking, the States with large means have the least unmet need, while the least wealthy States have the greatest need. In New York and Connecticut, for example, only about 3 additional beds per 1,000 population are now needed for all purposes. In Mississippi and Alabama, about 8 additional beds per 1,000 population are needed. Regionally, the greatest unmet need is in the Southern States, although substantial progress has been made there in recent years.

This is a summary of the need for additional hospital beds and of the problems of keeping abreast with population increases and obsolescence of facilities.

Responsibility for meeting shortages in hospital construction needs is, as has always been recognized, the responsibility of the States and communities. The function of the Federal Government is to assist and stimulate State action, within the limits of the Federal budget. The amount of Federal funds necessary during the 1955 fiscal year to provide that assistance and stimulation is estimated at $50 million.

BUDGET REQUEST

Mr. BUSBEY. While the budget request, Dr. Cronin, is for $50 million, which is $15 million less than what was appropriated in 1954, I have been informed that a supplemental request will probably reach

our committee today before we conclude our hearings for an additional $25 million. Is that your understanding?

Dr. CRONIN. That is my understanding.

Mr. BUSBEY. Which makes a total budget request of $75 million for hospital construction under the Hill-Burton law?

Dr. CRONIN. That is correct, sir.

REASON FOR REQUESTING INCREASED AUTHORIZATION IN ACT

Mr. BUSBEY. On page 1 of your statement you state:

> The amount authorized in the basic law for appropriation annually is $150 million.

I made mention of that fact on the floor when I opposed the authorization for an additional $60 million for categorical grants, rather than coming in with a proposal to amend the present law, as long as we had an authorization of $150 million. Were you consulted on that legislation, Dr. Cronin?

Dr. CRONIN. As a member of the Public Health Service I was consulted on the technical aspects of the program.

Mr. BUSBEY. Of course I understand it was departmental action and many people probably sat in on the various conferences regarding it. I have been trying to ascertain from someone why the department recommended that addition rather than an amendment to the law, and the reason I bring it up now, is that it has to do with new construction. If Mr. Larmon or Dr. Dearing or anybody else wants to talk on it, it is all right with me. I do not care who answers the questions.

Mr. LARMON. I think you raised the question as to why amendments were essential and why the services could not be provided for under the original act?

Mr. BUSBEY. I understand why they cannot be provided for under the original act. My question was: Why were not certain amendments asked for under the original act rather than new legislation?

Mr. LARMON. My understanding was that the amendments were required because the original law could not be interpreted to provide that some of these facilities could be separate.

Mr. BUSBEY. I have granted that.

Dr. DEARING. This new legislation was proposed as an amendment to the act. It does amend the act. I do not believe I quite understand your question, sir.

Mr. BUSBEY. I took it as new legislation in a new field rather than as an amendment to the Hill-Burton law.

Mr. LARMON. It is an amendment.

Mr. BUSBEY. The real crux of the thing, as far as I am concerned, is why ask for an additional $60 million when you have at least $75 million of authorization under the original law that you are not even asking to be appropriated.

Mr. LARMON. I can submit an answer to that question for the record, Mr. Chairman.

Mr. BUSBEY. I am not at variance with the idea of the program, but I am with the idea of coming in for an additional authorization of $60 million when you already have an authorization of $150 million.

Mr. LARMON. That is in regard to the increasing of the authorization?

Mr. BUSBEY. Yes.

Mr. LARMON. But not in regard to the substance proposed?

Mr. BUSBEY. Not at all. It seems to me it is not reasonable to ask for additional authorization when you do not intend to use $75 million of the authorization that is already provided under the law.

Mr. LARMON. I will be glad to submit an answer for the record, Mr. Chairman.

Mr. BUSBEY. I am one of these individuals who does not talk in riddles, and the reason I am so open and frank about these things, I want everybody to know my thinking so that if it is wrong it will give them every opportunlty to change my thinking. I do not take an obstinate nor arbitrary position on this at all, but I would like to be enlightened.

Mr. LARMON. We will submlt an answer for the record.

(The following information was supplied:)

RELATIONSHIP OF PROPOSED HOSPITAL SURVEY AND CONSTRUCTION ACT AMENDMENTS TO THE EXISTING PROGRAM

In his special health message to the Congress on January 18, 1954, the President included the following proposed amendments to the Hospital Survey and Construction Act:

"I present four proposals to expand or extend the present program:

"(1) Added assistance in the construction of nonprofit hospitals for the care of the chronically ill. These would be of a type more economical to build and operate than general hospitals.

"(2) Assistance in the construction of nonprofit medically supervised nursing and convalescent homes.

"(3) Assistance in the construction of nonprofit rehabilitation facilities for the disabled.

"(4) Assistance in the construction of nonprofit diagnostic or treatment centers for ambulatory patients.

"Finally, I recommend that, in order to provide a sound basis for Federal assistance in such an expanded program, special funds be made available to the States to help pay for surveys of their needs * * *"

These amendments were originally introduced in the House in H. R. 7341. Subsequently, a clean bill (H. R. 8149) incorporating certain modification was reported from the Committee on Interstate and Foreign Commerce and passed the House on March 9, 1954.

As indicated in the President's message, the purpose of these amendments was not to revise or replace the present program, but rather to broaden and expand the existing program to include certain classes of facilities not currently eligible for assistance and to provide, through the device of earmarked categorical appropriations, additional emphasis and stimulation for classes of facilities which have not received sufficient attention under the program to date.

In view of the nature and objectives of these amendments, the new categorical appropriations authorizations would supplement, rather than supplant, the $150 million authorization in the present act. The amount to be appropriated for any fiscal year, either under the existing general authorization or under the new categorical authorizations, will depend, therefore, not only on total program needs but also upon a determination of the most appropriate balance between the general and the categorical needs.

FUND ALLOCATIONS BY PRIORITY AREA

Mr. BUSBEY. Doctor, at the bottom of page 1 and top of page 2 of your statement you mention that the amount of Federal funds available to sponsors is determined by the State agencies. Would you please furnish the committee with an analysis showing expenditures of Federal and matching funds to date by fiscal year and by priority area based on the percentage of need already met?

Dr. CRONIN. We will be glad to do that, Mr. Chairman.

(The requested information follows:)

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
UNITED STATES AND TERRITORIES								
1948	144	44	88	62 [1] 5	$22,643	$10,650	$22,177	$14,708 [1] 1,578
1949	94	26	90	69 [1] 8	21,104	7,791	33,570	23,552 [1] 1,480
1950	77	21	139	148 [1] 31	26,654	8,607	57,828	47,597 [1] 13,931
1951	37	17	56	81 [1] 8	14,538	6,705	23,237	31,635 [1] 10,469
1952	19	5	79	68 [1] 12	6,281	1,572	34,931	20,357 [1] 3,771
1953	30	12	53	75 [1] 17	9,236	4,247	18,946	22,424 [1] 3,162
1954	6	8	7	15 [1] 3	1,507	3,806	2,555	2,776 [1] 565
Total	407	133	512	518 [1] 84	101,963	43,378	193,244	163,049 [1] 34,865
Grand total		1,570				501,634		
Status of area need:								
1948					610	152	516	1,060
Current					180	69	286	1,739
ALABAMA								
1948		3		4 [1] 2		1,353		1,388 [1] 751
1949	5	1	2		2,983	439	4,782	
1950	3			3 [1] 2	1,146			664 [1] 640
1951	6		1		1,766		345	
1952		1	1	1		253	376	247
1953	1			1	500			598
1954	2	1	1		700	350	1,000	
Total	17	6	5	9 [1] 4	7,094	2,396	6,502	2,897 [1] 1,391
Grand total		37				18,889		
Status of area need:								
1948					26	4	16	14
Current					4	3	19	36
ARIZONA								
1948				3				710
1949			2	2			310	111
1950				1				1,800
1951								
1952				2				69
1953		1				100		
1954				1				69
Total		1	2	9		100	310	2,460
Grand total		12				2,870		
Status of area need:								
1948					1		1	11
Current					1	1		14
ARKANSAS								
1948	6	1	3		714	150	376	
1949		2	5	1		509	2,069	74
1950	4		3		3,446		5,646	
1951	1		1		364		2,400	
1952								
1953								
1954	1				300			
Total	12	3	12	1	4,824	659	10,490	74
Grand total		28				16,047		
Status of area need:								
1948					9	5	15	10
Current					6	2	15	16

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
CALIFORNIA								
1948	1	5	2	3	$492	$1,054	$234	$346
1949	5	2	2		1,005	948	416	
1950	3		5	5	418		2,840	1,252
1951		1	3	1		913	1,637	90
1952			4	1			937	554
1953	1	3			119	2,076		
1954		2		1		803		186
Total	10	13	16	11	2,033	5,794	6,065	2,429
Grand total		50				16,321		
Status of area need:								
1948					17	15	15	37
Current					1	6	13	90
COLORADO								
1948		2	1			217	754	
1949	1		4	2	108		435	1,179
1950		1				400		
1951				2				510
1952				1		222		352
1953		1						
1954								
Total	1	4	5	5	108	839	1,189	2,041
Grand total		15				4,177		
Status of area need:								
1948					7	4	4	15
Current					3	1	1	27
CONNECTICUT								
1948	1		1	1	225		300	35
1949			2				600	
1950			2	2			500	387
1951			1	1			200	652
1952				4				425
1953			1	2			179	224
1954				1				200
Total	1		7	12	225		1,779	1,723
Grand total		20		2		3,727		400
Status of area need:								
1948					2		5	16
Current					1			22
DELAWARE								
1948			1				228	
1949								
1950	1				197			
1951				1				361
1952								
1953								
1954								
Total	1		1	1	197		228	361
Grand total		3				786		
Status of area need:								
1948					1		1	3
Current							1	3
DISTRICT OF COLUMBIA								
1948			1				526	
1949			1				815	
1950								
1951								
1952				2				23
1953								
1954								
Total			2	2			1,341	23
Grand total		4				1,364		
Status of area need:								
1948							1	
Current								1

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
FLORIDA								
1948	1	2	2		$94	$1,125	$284	
1949				2				$214
1950	2			4	695			2,633
				[1] 1				[1] 1,264
1951	2			3	668			653
1952			1	1			107	534
1953			4	3			952	471
1954			1	2			350	220
Total	5	2	8	15	1,457	1,125	1,693	4,725
				[1] 1				[1] 1,264
Grand total		30				$9,000		
Status of area need:								
1948					7	1	5	24
Current					4	1	5	30
GEORGIA								
1948	2		11	3	508		2,140	474
1949	2	1	6		594	116	1,778	
1950	1	1	14	1	198	154	4,402	100
1951	1		4	[1] 1	659		1,496	[1] 461
1952			10	[1] 1			2,397	[1] 93
1953			8	1			2,917	1,524
1954				1				56
Total	6	2	53	8	1,959	271	15,130	2,707
				[1] 2				[1] 554
Grand total		69				20,067		
Status of area need:								
1948					4	3	20	20
Current					1		2	44
IDAHO								
1948	3				351			
1949	1		1	1	182		32	140
1950			2	3			524	359
1951			1	2			22	210
1952			1				135	
1953			1				15	
1954								
Total	4		6	6	533		727	709
Grand total		16				1,969		
Status of area need:								
1948					9		3	7
Current					3		1	11
ILLINOIS								
1948	7				2,666			
1949	7			1	2,681			204
1950	4		1	1	3,804		302	71
1951	2		3		1,897		580	
1952	2	1			1,446	643		
1953	3				2,036			
1954								
Total	25	1	4	2	14,530	643	882	276
Grand total		32				16,331		
Status of area need:								
1948					21	5	15	33
Current					6	5	11	64
INDIANA								
1948	8		2		1,596		270	
1949	3	2	2	1	848	370	1,044	161
1950	2	2	3	4	360	564	1,068	1,260
1951			3				2,728	
1952			5	1			5,113	195
1953								
1954								
Total	13	4	15	6	2,804	933	10,223	1,616
Grand total		38				15,576		
Status of area need:								
1948					20	5	24	26
Current					8	3	14	46

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
IOWA								
1948	8	2			$1,145	$273		
1949	2	1	4		296	80	$995	
1950	3	3	6	1	379	452	1,544	$539
1951	1	1	1	4	331	171	253	1,148
1952				1				166
1953				4				1,096
1954			1	2 [1] 1			360	353 [1] 148
Total	14	7	12	12 [1] 1	2,151	976	3,152	3,301 [1] 148
Grand total			45			9,580		
Status of area need:								
1948					17	5	16	22
Current					4		6	51
KANSAS								
1948	1	7	2		48	867	148	
1949	2		4		337		659	
1950			9	2			2,524	312
1951			1				605	
1952								
1953	4				1,360			
1954								
Total	7	7	16	2	1,745	867	3,936	312
Grand total			32			6,860		
Status of area need:								
1948					2	3	11	24
Current							1	27
KENTUCKY								
1948	3		3	[1] 1	415		541	[1] 490
1949	5	1	1	3	547	472	76	1,534
1950	1	2	4	1	718	513	1,203	424
1951	1	1	2	2	848	590	1,911	779
1952	1		3	1	588		1,442	1,284
1953			1				150	
1954			1	[1] 1			150	[1] 337
Total	11	4	15	9 [1] 2	3,116	1,575	5,474	4,848 [1] 827
Grand total			39			15,013		
Status of area need:								
1948					41	3	21	24
Current					3	2	23	39
LOUISIANA								
1948	2	1	5	1	291	86	888	93
1949								
1950	2		1	[1] 1	329		1,211	[1] 313
1951		1	2	[1] 1		813	628	[1] 890
1952	2			[1] 1	429			[1] 1,326
1953	2		2		509		775	
1954				1				471
Total	8	2	10	5 [1] 3	1,558	899	3,502	3,093 [1] 2,528
Grand total			25			9,052		
Status of area need:								
1948					14	6	22	20
Current					7		5	53
MAINE								
1948			1	1			115	226
1949			2				1,425	
1950			3				1,425	
1951								
1952								
1953			1				349	
1954	1				240			
Total	1		7	1	240		3,314	226
Grand total			9			3,780		
Status of area need:								
1948					4	3	8	7
Current					4	3	4	11

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
KENTUCKY								
1948								
1949	3		3	[1] 1	$415		$541	[1] $490
1950	5	1	1	3	547	$472	76	1,534
1951	1	2	4	1	718	513	1,203	424
1952	1	1	2	2	848	590	1,911	779
1953	1		3	1	588		1,442	1,284
1954			1				150	
			1	[1] 1			150	[1] 837
Total	11	4	15	{ 9 [1] 2 }	3,116	1,575	5,474	{ 4,848 [1] 827
Grand total		39				15,013		
Status of area need:								
1948								
Current					41	3	21	24
					3	2	23	39
LOUISIANA								
1948								
1949	2	1	5	1	291	86	888	93
1950								
1951	2		1	[1] 1	329		1,211	[1] 313
1952		1	2	[1] 1		813	628	[1] 890
1953	2			[1] 1	429			[1] 1,325
1954	2		2		509		775	
				1				471
Total	8	2	10	{ 5 [1] 3 }	1,558	899	3,502	{ 3,093 [1] 2,528
Grand total		25				9,052		
Status of area need:								
1948								
Current					14	6	22	20
					7		5	53
MAINE								
1948								
1949			1	1			115	226
1950			2				1,425	
1951			3				1,425	
1952								
1953								
1954	1		1				349	
Total	1		7	1	240		3,314	226
Grand total		9				3,780		
Status of area need:								
1948								
Current					4	3	8	7
					4	3	4	11
MARYLAND								
1948	1			2	178			849
1949								
1950				3				
1951	1			1	305			928
1952			2	2			564	78
1953			1	3			139	480
1954								539
Total	2		3	11	483		703	2,873
Grand total		16				4,059		
Status of area need:								
1948								
Current					3		2	11
							2	13
MASSACHUSETTS								
1948								
1949	2	2		1	524	527		275
1950	2	1	2	6	670	400	474	1,544
1951		1	2	{ 4 [1] 2 }		500	276	{ 573 [1] 407
1952		2	4	1		641	1,000	117
1953	1		7	3	184		1,229	560
1954	2	1	1	[1] 2	500	250	283	[1] 145
Total	7	7	16	{ 17 [1] 4 }	1,878	2,317	3,263	{ 3,214 [1] 552
Grand total		47				10,672		
Status of area need:								
1948								
Current					6	4	11	50
					1	2	22	43

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
MICHIGAN								
1948	3	2	1	1	$566	$1,117	$95	$702
1949	1	1	2	1	262	833	343	903
1950	6		3	5	2,180		1,778	1,238
1951	3	1	2	1	1,129	180	461	90
1952	4		2	3	981		1,368	414
1953	3		3		806		1,125	
1954								
Total	20	4	13	11	5,924	2,130	5,171	3,348
Grand total		48				16,573		
Status of area need:								
1948					20	7	22	22
Current					5	4	11	59
MINNESOTA								
1948	3		1	1	372		111	75
1949	7	1	2	2	1,254	79	305	179
1950	7				3,070			
1951	1	1	3	[1] 2	451	461	749	[1] 2,286
1952								
1953	1		1	1	232		459	13
1954								
Total	19	2	7	6 [1] 2	5,379	540	1,623	2,553 [1] 2,286
Grand total		34				10,095		
Status of area need:								
1948					28	3	15	39
Current					11	1	8	51
MISSISSIPPI								
1948	11	2			1,389	222		
1949	14	1	1		2,417	776	198	
1950	3	3	1	2	1,018	1,231	1,385	1,022
1951	2		1		430		469	
1952	1		1		743		3,000	
1953	1		1		638		417	
1954	1	2			64	1,500		
Total	33	8	5	2	6,700	3,729	5,469	1,022
Grand total		48				16,920		
Status of area need:								
1948					28	8	15	35
Current					5	5	8	36
MISSOURI								
1948	3		2	1	606		461	352
1949			3				4,230	
1950	1			4 [1] 1	314			3,020 [1] 1,383
1951		1				282		
1952			2	2			981	1,023
1953				2 [1] 1				989 [1] 575
1954								
Total	4	1	7	9 [1] 2	921	282	5,675	5,384 [1] 1,958
Grand total		21				12,262		
Status of area need:								
1948					11	4	9	25
Current						3	5	38

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
MONTANA								
1948	3			1	$223			$55
1949	2			1	218			112
1950	3		2		208		$158	
1951	1			2	30			213
1952		1	3	1		$277	250	15
1953								
1954								
Total	9	1	5	5	680	277	417	395
Grand total		20				1,769		
Status of area need:								
1948					10			20
Current						1		29
NEBRASKA								
1948	5		1	3	503		60	149
1949	1	1	2	[1] 1	107	99	118	[1] 449
1950	2		3	9	304		355	849
1951		1		4		60		708
1952				1				174
1953		1		[1] 1		367		[1] 275
1954								
Total	8	3	6	19 [1] 2	913	527	534	2,605 [1] 724
Grand total		36				4,579		
Status of area need:								
1948					13	1	10	16
Current					2	1	1	35
NEVADA								
1948								
1949				2				258
1950								
1951				1				8
1952				1				167
1953	1				234			
1954								
Total	1			4	234			433
Grand total		5				667		
Status of area need:								
1948					1			10
Current					3			9
NEW HAMPSHIRE								
1948				2 [1] 1				472 [1] 302
1949				4				574
1950				2 [1] 1				989 [1] 645
1951								
1952				1				252
1953		1				432		
1954								
Total		1		9 [1] 2		432		2,287 [1] 947
Grand total		10				2,719		
Status of area need:								
1948								9
Current					6	1	2 1	20

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
NEW JERSEY								
1948			2	1			$901	$573
1949	2		2	2	$989		1,050	336
1950			5	3			1,368	444
1951	1	1	1	4	727	$675	691	2,515
1952								
1953								
1954								
Total	3	1	10	10	1,716	675	4,010	3,868
Grand total		24				10,269		
Status of area need:								
1948					3		4	24
Current					1	4	5	21
NEW MEXICO								
1948	3	1	1		190	250	200	
1949			3				440	
1950	1	2	4		156	1,705	920	
1951								
1952								
1953			1				9	
1954								
Total	4	3	9		346	1,955	1,569	
Grand total		16				3,870		
Status of area need:								
1948					9	4	11	9
Current					5	2	2	24
NEW YORK								
1948		2	5	5		721	2,348	1,198
1949		1	9	5		79	2,815	562
				[1] 2				[1] 19
1950		3	10	9		946	2,821	3,036
				[1] 2				[1] 50
1951		2	2	7		848	176	2,894
				[1] 1				[1] 151
1952			2	2			680	466
1953			1	12			1,307	4,364
1954								
Total		8	29	40		2,594	10,147	12,520
				[1] 5				[1] 220
Grand total		77				25,261		
Status of area need:								
1948					4	5	23	26
Current					3		5	50
NORTH CAROLINA								
1948	12	3			2,115	859		
1949	5	2	2	6	911	451	667	1,202
1950	2	1	9	16	611	264	3,137	2,291
				[1] 12				[1] 1,235
1951	1		2	7	152		599	3,134
1952	3		3	9	794		632	1,202
				[1] 5				[1] 292
1953	3		2	19	235		1,017	1,422
				[1] 11				[1] 622
1954								
Total	26	6	18	57	4,819	1,574	6,052	9,251
				[1] 28				[1] 2,149
Grand total		107				21,696		
Status of area need:								
1948					40	12	12	39
Current					17		5	82

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
NORTH DAKOTA								
1948	4				$328			
1949	3				378			
1950	5				512			$13
1951	1		2		210		$155	
1952								
1953								
1954								
Total	13		2	1	1,428		155	13
Grand total		16				$1,596		
Status of area need:								
1948					27	2	6	6
Current					7	1	1	41
OHIO								
1948	5	2	2	1	1,566	472	523	196
1949	1	2	3	2	280	701	925	807
1950	2		4	14	322		1,230	2,794
1951	2		3	2 [1] 1	1,394		2,009	648 [1] 230
1952	2		7	1	138		4,202	1,246
1953		2	4	2		699	2,131	117
1954								
Total	12	6	23	22 [1] 1	3,700	1,873	11,020	5,807 [1] 230
Grand total		63				22,400		
Status of area need:								
1948					13	6	14	41
Current					2		8	65
OKLAHOMA								
1948	5	1	3	7	321	98	266	740
1949	2	1	3	[1] 1 [1] 3	356	95	754	[1] 35 [1] 364
1950	2		2	2	170		1,316	28
1951				2				648
1952			1	1			227	200
1953	2		5	3	370		1,545	423
1954			1	1			165	270
Total	11	2	15	19 [1] 4	1,218	193	4,272	2,673 [1] 399
Grand total		47				8,356		
Status of area need:								
1948					20	5	15	35
Current					2		10	53
OREGON								
1948	2				498			
1949	1		1	1	79		310	100
1950			3	1			784	729
1951	1		2	4	91		184	826
1952								
1953			2	1			397	127
1954								
Total	4		8	7	668		[1] 1,675	[1] 1,783
Grand total		19				4,126		
Status of area need:								
1948					4		9	11
Current						2	3	22

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
PENNSYLVANIA								
1948	1		11	3	$270		$4,501	$753
1949			3	5			2,359	2,848
1950	1		12	8	615		7,512	3,661
				[1] 4				[1] 2,355
1951			3	2			1,418	412
1952			6	[1] 1			4,550	[1] 109
1953		2	5	3		$568	2,392	2,063
				[1] 1				[1] 1,345
1954								
Total	2	2	40	22	885	568	22,732	9,545
				[1] 6				[1] 3,809
Grand total		66				33,730		
Status of area need:								
1948					1		18	17
Current					5	3	9	66
RHODE ISLAND								
1948	1			1	432			17
1949				1				670
1950			1	3			281	608
1951								
1952								
1953				1				60
1954								
Total	1		1	6	432		281	1,354
Grand total		8				2,067		
Status of area need:								
1948					1		1	3
Current							2	4
SOUTH CAROLINA								
1948	3	1	4	1	455	120	907	180
1949	2		3	2	328		582	1,999
1950	2			4	1,004			757
1951				2				5,986
				[1] 1				[1] 5,851
1952	1			[1] 1	300			[1] 40
1953	1		1		416		310	
Total	9	1	8	10	2,503	120	1,799	8,962
				[1] 2				[1] 5,891
Grand total		28				13,384		
Status of area need:								
1948					15	2	10	19
Current					5	1	3	37
SOUTH DAKOTA								
1948	4				398			
1949	3				522			
1950	1		1	2	33		105	522
1951	1			2	120			375
1952			1				34	
1953	1				100			
1954								
Total	10		2	4	1,173		139	897
Grand total		16				2,209		
Status of area need:								
1948					15	1	3	23
Current					1	1	1	31

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
TENNESSEE								
1948		3	5	2		$676	$1,231	$601
1949	1		1	2	$405		673	517
				[1] 1				[1] 78
1950			4	3			2,612	1,084
1951								
1952			4	1			1,479	223
1953			3	1			1,306	348
1954		1	2	2		390	530	257
Total	1	4	19	11	405	1,066	7,832	3,031
				[1] 1				[1] 78
Grand total		35				12,334		
Status of area need:								
1948					4	8	14	9
Current					1	3	11	21
TEXAS								
1948	20	2	10	1	1,821	463	1,977	65
1949	6	1	4	5	479	235	1,165	3,667
1950	2	1	7	10	218	500	3,905	5,638
				[1] 2				[1] 175
1951	2		1	8	398		160	2,645
1952			7	3			3,321	1,952
1953				2				2,180
1954								
Total	30	4	29	29	2,915	1,198	10,529	16,148
				[1] 2				[1] 175
Grand total		92				30,790		
Status of area need:								
1948					64	8	52	109
Current						1	9	109
UTAH								
1948	1				146			
1949	1		2	1	15		328	[1] 579
1950	1		1		133		221	
1951	1			1	255			221
1952				1				288
1953								
1954								
Total	4		3	3	549		549	1,087
				[1] 1				[1] 579
Grand total		10				2,185		
Status of area need:								
1948					4		3	7
Current							1	14
VERMONT								
1948			1	1			158	408
1949			2				253	
1950			1	1			93	[1] 780
1951								
1952								
1953								
1954								
Total			4	2			503	1,188
				[1] 1				[1] 780
Grand total		6				1,691		
Status of area need:								
1948							2	3
Current					1		4	8

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
VIRGINIA								
1948			2	5			$1,371	$1,295
1949	3			1	$1,308			1,056
1950	1	2	1	1	302	$1,778	1,419	374
1951	2		2		1,012		382	
1952	1		2	6	428		845	1,420
				[1] 1				[1] 202
1953				6				4,115
1954								
Total	7	2	7	19	3,049	1,778	4,017	8,259
				[1] 1				[1] 202
Grand total		35				17,103		
Status of area need:								
1948					16	2	7	20
Current					5	1	10	27
WASHINGTON								
1948	3			3	214			432
1949				2				467
1950	2		1	5	508		299	1,051
1951		1	2	2		92	634	678
				[1] 1				[1] 600
1952				2				757
1953			1	3			296	709
1954								
Total	5	1	4	17	722	92	1,229	4,094
				[1] 1				[1] 600
Grand total		27				6,137		
Status of area need:								
1948					5		4	26
Current					1		6	22
WEST VIRGINIA								
1948				2				1,558
1949								
1950	2		1		2,633		386	
1951	1		2		916		1,205	
1952				[1] 1				[1] 770
1953	1				775			
1954				1				255
Total	4		3	4	4,324		1,591	2,583
				[1] 1				[1] 770
Grand total		11				8,498		
Status of area need:								
1948					17		3	21
Current					8	1	3	28
WISCONSIN								
1948	4				852			
1949	3	2	1	1	529	459	59	1,042
1950	3		4	3	442		1,116	599
1951	1			2	196			649
1952		1	2	2		13	653	718
1953	3		2	1	406		251	270
1954	1				203			
Total	15	3	9	9	2,628	471	2,078	3,278
Grand total		36				8,455		
Status of area need:								
1948					19	5	9	38
Current					5	2	6	62
WYOMING								
1948	1		1		129		64	
1949		1	1			84	87	
1950			1	2			105	186
1951		2				580		

[1] Special projects: University teaching centers, other training facilities, clinics, research.

General hospital projects approved and Federal funds allotted by area percentage of need met with status of area need as of Dec. 31, 1953—Continued

Fiscal year	Number of projects approved, by area percent of need met				Federal funds allotted (thousands), by area percent of need met			
	0	1 to 25	25 to 50	Over 50	0	1 to 25	25 to 50	Over 50
WYOMING—con.								
1952								
1953								
1954								
Total	1	3	3	2	$129	$663	$255	$186
Grand total		9				1,233		
Status of area need:								
1948					1	1	4	6
Current					5		1	17
ALASKA								
1948			1				199	
1949								
1950	2				211			
1951	1				189			
1952	1				250			
1953								
1954								
Total	4		1		650		199	
Grand total		5				849		
Status of area need:								
1948					2	1	1	12
Current					11	1	1	8
HAWAII								
1948								
1949		1				566		
1950			1				387	
1951								
1952			1				384	
1953								
1954								
Total		1	2			566	770	
Grand total		3				1,333		
Status of area need:								
1948					2	1	2	1
Current					4			4
PUERTO RICO								
1948								
1949				2			670	4,568
1950			2	1				[1] 4,384
1951			1	5			140	1,260
1952		1	1	6		386	13	2,456
1953		1	1	1		186	226	[1] 940
1954		1		2		109		302
				1				[1] 80
Total		3	5	15		681	1,049	8,587
Grand total		23		1 3		10,317		[1] 5,404
Status of area need:								
1948							2	
Current						1	1	5
VIRGIN ISLANDS								
1948	1				2			
1949	1				16			
1950								
1951								
1952								
1953								
1954								
Total	2				18			
Grand total		2				18		
Status of area need:								
1948					2			
Current					2			

[1] Special projects: University teaching centers, other training facilities, clinics, research.

Since the beginning of the program in 1947, the major portion of Federal funds for general hospital construction has been applied in hospital service areas of greatest unmet need.

As of December 31, 1953, a total of 1,507 such projects have been approved. Federal funds allotted to these projects, from seven annual appropriations, amount to a total of $501 million. Two-thirds of the projects and two-thirds of the funds are located in areas which had less than 50 percent of their total need met. Over 400 of these projects and over $100 million in Federal funds have been applied in areas which previously had no acceptable facilities, that is, had 0 percent of need met. The distribution of Federal assistance by area needs is summarized in the following table:

Area needs	Number of projects	Federal funds (millions)
0 to 25 percent of need met	540	$145
25 to 50 percent of need met	512	193
Over 50 percent of need met	434	128
Special projects (teaching and research)	84	35
Total	1,570	501

It may be noted that, generally, areas with greatest need have been areas smaller in population and with limited financial resources. Not all such areas have been able to qualify for assistance by raising matching funds, even though they have retained a high priority. Nevertheless, in 7 years the program has resulted in a very great decrease in the number of areas with high remaining need. In 1948, 610 areas were reported by State plans as having 0 percent of need met, and 1,278 areas with less than 50 percent of need met, of a total of 2,338 general hospital areas, nationally. Current State plans indicate only 180 areas with 0 percent of need met and 535 areas where existing facilities amount to less than 50 percent of total need, of a total of 2,274 areas. Areas with no acceptable facilities have been reduced by more than two-thirds, in line with the priority intent of the statute.

AMOUNT SPENT FOR RELATED FACILITIES

Mr. BUSBEY. Would you please furnish the committee with a statement showing the aggregate spent to date for related facilities by type?

Dr. CRONIN. Yes, sir. We will be glad to do that.

(The requested information follows:)

Total Federal funds allotted by the States (under the hospital survey and construction program) for related hospital facilities providing no hospital beds

Type of facility	Number	Federal share
Total	563	$42,641,319
State health laboratory	18	3,680,731
Public and auxiliary health centers	376	14,961,329
Nurses homes and training facilities	100	14,351,412
Service facilities	69	9,647,847

BREAKDOWN OF HILL-BURTON HOSPITALS BY TYPE AND SIZE

Mr. BUSBEY. In connection with your statement on page 3, first paragraph, will you please furnish the committee with an analysis of the Hill-Burton funds that have been spent for structures that added hospital beds, showing by category, such as general, tuberculosis, and so forth, and by size of hospital, the amount of funds obligated each fiscal year.

Dr. CRONIN. We will be glad to attempt that, sir.

(The requested information follows:)

Distribution of all hospital projects, new hospital projects, and projects involving additions or alterations to existing facilities, by type and size of facility, Dec. 31, 1953

[Funds in thousands of dollars]

Type of hospital and number of beds	Percent distribution			All projects			New projects			Additions and alterations		
	Project	Total cost	Federal share	Number of projects	Total cost	Federal share	Number of projects	Total cost	Federal share	Number of projects	Total cost	Federal share
General: [1]												
Total	100.0	100.0	100.0	1,547	1,472,766	499,202	801	746,304	261,212	746	726,462	237,990
Under 25	13.4	3.7	3.9	207	53,689	19,631	170	40,688	15,337	37	13,000	4,294
25 to 49	24.4	10.5	12.7	378	154,561	63,484	312	136,695	55,862	66	17,867	7,622
50 to 74	16.1	10.2	12.3	249	150,166	61,490	132	102,615	43,044	117	47,550	18,446
75 to 99	7.1	6.4	6.9	109	94,723	34,324	42	52,141	18,282	67	42,582	16,042
100 to 299	30.1	44.8	45.5	466	659,824	226,860	125	286,924	99,178	341	372,900	127,682
300 or more	8.9	24.4	18.7	138	359,803	93,413	20	127,241	29,509	118	232,563	63,904
Tuberculosis:												
Total	100.0	100.0	100.0	59	61,823	22,216	27	36,187	13,098	32	25,636	9,118
Under 25	3.4	.3	.6	2	215	132	1	80	42	1	135	90
25 to 49	1.7	.5	.2	1	341	49				1	341	49
50 to 74	8.5	7.9	8.8	5	4,878	1,942	5	4,878	1,942			
75 to 99	3.4	2.5	1.4	2	1,537	316	1	778	88	1	759	228
100 to 299	45.7	48.9	48.6	27	30,208	10,804	16	21,034	7,949	11	9,174	2,855
300 or more	37.3	39.9	40.4	22	24,644	8,973	4	9,417	3,077	18	15,227	5,896
Mental:												
Total	100.0	100.0	100.0	89	78,757	30,133	19	29,318	10,088	70	49,439	20,045
Under 25	2.3	.4	.4	2	349	122				2	349	122
25 to 49	1.1	.6	.4	1	444	129	1	444	129			
50 to 74	1.1	1.6	1.4	1	1,285	404	1	1,285	404			
75 to 99	1.1	2.2	1.7	1	1,695	508	1	1,695	508			
100 to 299	16.9	22.7	20.4	15	17,878	6,150	8	10,785	4,022	7	7,093	2,127
300 or more	77.5	72.5	75.7	69	57,106	22,820	8	15,109	5,025	61	41,997	17,796
Chronic:												
Total	100.0	100.0	100.0	32	46,861	10,470	18	32,777	7,512	14	14,084	2,958
Under 25												
25 to 49	9.4	1.9	2.1	3	888	224	2	707	178	1	181	46
50 to 74	28.1	10.3	15.1	9	4,851	1,583	5	3,562	1,008	4	1,289	575
75 to 99	9.4	3.1	3.4	3	1,456	358	3	1,456	358			

100 to 299	37.5	37.2	34.7	12	17,410	3,628	5	11,749	2,360	7	5,661	1,268
300 or more	15.6	47.5	44.7	5	22,256	4,677	3	15,303	3,608	2	6,953	1,069
General with public health clinic:												
Total	100.0	100.0	100.0	71	51,040	19,642	58	43,457	16,272	13	7,583	3,370
Under 25	36.6	11.2	15.7	26	5,693	3,077	22	4,732	2,510	4	961	567
25 to 49	26.8	17.4	18.5	19	8,901	3,643	18	8,626	3,460	1	275	184
50 to 74	16.9	20.1	21.2	12	10,252	4,155	9	9,201	3,511	3	1,051	644
75 to 99	7.0	10.3	11.0	5	5,248	2,172	3	3,583	1,489	2	1,665	683
100 to 299	12.7	41.0	33.6	9	20,946	6,595	6	17,315	5,302	3	3,631	1,292
300 or more												

[1] Included in the general hospital category are 100 nurses' homes and training facilities projects for which the Federal share allotted by States to these projects was $14,351,412 and 69 service facility projects for which the Federal share allotted to these projects by the States is $9,647,847. These projects are facilities in which no beds were added.

Mr. BUSBEY. What is the total amount that has been spent for public health centers?

Dr. CRONIN. As of December 31, Mr. Chairman, there were 270 public health centers. The estimated total cost is $36,556,299, of which the estimated Federal share was $13,161,613.

Mr. BUSBEY. Could you furnish for the record a breakdown showing the total per State?

Dr. CRONIN. Yes, sir; we can submit that.

(The requested information follows:)

Public health centers—Distribution of approved project applications, total construction costs, and Federal share of such costs, by State and Territory, Dec. 31, 1953

Area	Number of projects	Construction costs	
		Total cost	Federal share
Total, United States and Territories	270	$36, 556, 299	$13, 161, 613
Alabama	10	2, 328, 410	1, 005, 437
California	13	2, 814, 864	866, 996
Colorado	1	162, 558	70, 442
Connecticut	2	41, 638	13, 876
Florida	2	221, 874	82, 750
Georgia	25	3, 531, 449	1, 509, 324
Idaho	2	117, 875	58, 937
Illinois	1	2, 494	968
Indiana	1	19, 195	2, 942
Kentucky	21	1, 646, 410	1, 096, 879
Louisiana	29	2, 311, 631	1, 206, 807
Maryland	8	2, 071, 887	396, 036
Massachusetts	3	2, 360, 763	613, 644
Michigan	1	2, 987, 175	71, 455
Minnesota	2	1, 180, 530	387, 292
Mississippi	23	1, 405, 022	579, 6 9
Missouri	2	921, 361	321, 978
New Jersey	1	35, 700	1., 280
New York	2	513, 736	151, 181
North Carolina	42	2, 505, 993	931, 340
Ohio	2	2, 236, 302	681, 455
Oklahoma	4	360, 269	168, 890
South Carolina	19	1, 608, 055	70[illegible], 877
Tennessee	18	1, 151, 025	592, 689
Texas	5	709, 227	323, 272
Utah	1	66, 071	21, 973
Virginia	22	2, 166, 483	1, 075, 136
Washington	4	934, 302	138, 058
West Virginia	1	105, 000	64, 050

Auxiliary health centers.—Distribution of approved project applications, total construction costs and Federal share of such costs, by State and Territory, Dec. 31, 1953

Area	Number of projects	Construction costs	
		Total cost	Federal share
Total, United States and Territories	106	$3, 709, 211	$1, 799, 716
Alabama	2	192, 911	117, 807
Colorado	2	109, 088	46, 601
Florida	4	231, 397	130, 385
Georgia	35	1, 757, 647	730, 241
Louisiana	3	88, 160	40, 979
Maryland	1	58, 124	25, 574
Mississippi	7	147, 979	98, 654
Oklahoma	5	250, 005	124, 877
South Carolina	46	831, 900	463, 598
Hawaii	1	42, 000	21, 000

EFFECT OF CHANGES IN STANDARDS OF MEDICAL PRACTICE

Mr. BUSBEY. In the second paragraph on page 3 of your statement you mention that the need for physical facilities is a medical concept based on changing standards of modern medical practice. What changes have been made in your estimate of total hospital bed needs because of these changing standards and what are the changing standards that have prompted you to make such changes?

Dr. CRONIN. The basic changing standards in regard to medical care are quite numerous. Some have been due to the advent of the use of antibiotic drugs such as penicillin and aureomycin, among others, which have resulted in patients with diseases such as pneumonia not requiring as many days in the hospital as used to be required when we did not have those drugs.

Another change is the ambulatory therapeutic program for postsurgical cases. As recently as 15 years ago we would require a patient following an appendectomy to remain in bed approximately 10 days, whereas today the procedure and practice is that the patient is out of bed and on his feet within 3 days of his operation, considering, of course, there are no serious complications. That has resulted in earlier return to the home of the patient and less hospital days per patient per disease.

However, under the Hospital Survey and Construction Act the ceilings in the law and the ratios used—and I might say we know of no better ratios than those existing in the law—we find that because of the great shortage of hospital beds throughout the Nation—and after all, we did have about an 18-year accumulated deficit in this program. The program started in 1946 and the shortage then was about 900,000 beds, and we have cut that deficit a small amount but we are working against two annual problems. One is the increased population in this country, which last year was in excess of 2,500,000; and the other is obsolescence of our hospitals. Forty percent of our hospitals are 40 years of age. The life expectancy of a hospital is about 50 years. Then we have acts of God, such as fire, floods, winds, tornadoes, and so forth, that have taken their toll. We figure from those two types of attrition we need approximately 30,000 beds per year, utilizing the formulas in the Hill-Burton program.

The formulas in the Hill-Burton program have been found to be sound and practical and useful and we know of no better ratio on which to base our estimates. So there is really no indication for change at this time. Because of the advances of modern medicine, the two items I have mentioned, the advent of antibiotics and early ambulation—I might add we also have the trend toward more outpatient care and a greatly increasing emphasis on a more scientific approach to the practice of medicine using biophysics, nuclear physics, coming from the atomic bomb—which combined with the terrific shortages we have not believed there should be a change in the basic formula for beds needed. We are of the opinion that anything we can do in building hospital beds is certainly a major contribution in this Nation and backs up our total national security.

EFFECT OF SHORTER PERIODS OF HOSPITALIZATION

Mr. BUSBEY. Have you made any change in your estimate of total number of beds needed, in view of the lesser number of days a patient spends in the hospital for many illnesses or disorders?

Dr. CRONIN. We have not because those factors work against the number of beds needed. Our hospitals are being used more than they ever were. The number of people admitted to the hospitals is increasing. The number of days is decreasing per patient use.

Mr. BUSBEY. That is due to some extent to the various hospital insurance programs that have been sold to the public, is that not right?

Dr. CRONIN. Not necessarily. I think the hospital programs that have been developed in the country, both Federal and non-Federal, are the result of the people in the country realizing the role that a hospital plays in their daily life and realizing that without the hospital they would be worse off than they are in the total situation. I think the hospital programs did not require any selling because I think the people were aware of their great essential need to stay well.

Mr. BUSBEY. The people, generally speaking, are getting more accustomed to going to hospitals than some years ago. Would you say that is a correct statement?

Dr. CRONIN. That is true, but I would like to indicate why I think it is true. I think it is true because the people of the country realize the hospital is the health center of their community and is becoming more and more so throughout all sections of the country; and people are realizing that in order to stay well they need assistance in maintaining their health, and one of the ways to maintain their health is to prevent illness; and one of the ways to prevent illness is to see that early diagnosis is made and that they take the necessary defenses against getting sick. Also, the general attitude toward our hospitals and what they represent and what they do has undergone a significant change since the turn of the century. Back in the days of my grandfather a hospital was considered the end result. People went there feeling they would never come home. It was quite a ritual to put grandfather in the hospital. Today the same grandfather and grandmother are willing to go to the hospital to keep well and they return to their home as soon as possible.

Mr. BUSBEY. I also found on my inspection trip last summer, in talking to various doctors in different communities that had a hospital for the first time, that right at the beginning, it was rather difficult to sell some of the people on going to the hospital when the doctors wanted them to. It took a little time to educate the people to the hospital because, as you said, they thought that was the end.

Dr. DEARING. Mr. Chairman, there is one major factor that has been interesting to us in the medical field and that is the result of the war. Our Army was made up of citizens from all over the country, including areas that had been underhospitalized. They went in the service and learned what good medical care was, including care in hospitals, and that led the whole generation to utilize more of what modern medicine has to offer.

Mr. BUSBEY. At the bottom of page 3 you say:

> Need for hospital services can be broken down into several primary types of specialized care. For the last quarter century the American Hospital Association and individual experts in planning medical care have regarded ratios between population and the number of hospital beds needed as the principal measure of requirements for hospital service.

Will you give the committee the basic elements, historically, in estimating the number of hospital beds to be provided in this program?

Dr. CRONIN. Mr. Chairman, to go back to 1939 when certain authorities and representative citizens in this Nation realized that we were about to embark on a participating position in the world conflict which became eventually World War II, they became very aware of the fact that certain areas of this country, as a result of increased industrialization related to the building of machinery of war such as airplanes and steel mills and even in the wheat fields, were in need of help. There was a migration of people to these small towns which resulted in the mushrooming of those small towns without adequate community facilities such as hospitals, schools, roads, highways, sewage-disposal plants, garbage-disposal plants, and so forth. I will confine my remarks to the hospitals and related health centers.

About that time Congress passed a law providing that general tax funds could be furnished to those communities on a matching basis so that those communities could develop those facilities that were lacking since they were devoting their industrial facilities to the war.

It was found that that type of procedure in building hospitals was not an orderly one and did not answer the basic needs that needed answering. Under the auspices of the American Hospital Association and supported by the American Medical Association, the American Public Health Association, and others, both organizations and individuals, the commission on hospital care was organized and put under the direction of the late Dr. A. C. Bachmeyer, who was director of the University of Chicago clinics and formerly was superintendent of the Cincinnati General Hospital, which position he had been in for over 15 years and at the same time was dean of the University of Cincinnati Medical School. He had no peer in the hospital field.

As a result of the studies of that commission on hospital care, the assumptions that were in the minds of many people gave way to being factual. One was that we did not have hospitals in the rural areas of this Nation. Of the nearly 3,100 counties, 1,200 had no hospital of any kind.

Another was that physicians were not staying in the rural areas. They were moving where they had the necessary adjuncts in making accurate diagnoses. They did not wish to remain where they did not have those facilities and scientific tools.

As a result, this Commission studied this situation and came up with some very definite recommendations. Those recommendations resulted in this program of hospital survey and construction under the bipartisan leadership of Senator Burton, who was then the junior Senator from Ohio, and Senator Hill, now the senior Senator from Alabama.

The program had to have certain basic standards on which to predicate what it hoped to accomplish in terms of spending or making

available this Federal money to the States. The basic standards were incorporated in the bill which became an act in August 1946. In reference to the ratios under discussion, the Hill-Burton Act provides that these funds made available under the Hospital Survey and Construction Act were not to be used to build in excess of 4½ or 5½ beds per thousand people in any State for general hospitals; that for tuberculosis hospitals the number of beds should not exceed 2½ times the average annual deaths from tuberculosis in a State over a sample period from 1939 to 1944; and that the total number of beds for mental patients should not exceed 5 per thousand population; and the total number of beds for chronic disease patients should not exceed 2 per thousand population. Also, public-health centers were not to exceed 1 public-health center per 30,000 to 50,000 people in direct relationship to the density of the population.

Those are the ceiling figures that determined the distribution of the appropriated funds from the Federal Government. Those figures were predicated upon the best judgment of the people comprising the hospital commission for the study of hospital care and other consultants who were consulted by the Public Health Service and by its associates at that time in the total problem of finding the answer.

It has, in my opinion, been a very fine thing that those figures in the very beginning have over the years been found to be as accurate as they are. One could say that any figure could have been used, and that is essentially true, but I think the figures arrived at by these consultants, by this group that studied hospital needs in this country, were not blue-sky figures but figures based on experience and what they at that time, to the best of their knowledge, felt were the desirable figures, and they have stood up.

I might add one more thing. Last Friday, at a meeting of the Federal Hospital Council, which is the advisory and operational council required by law to the Surgeon General, that Council recommended a change relating to the ratio as to tuberculosis hospital beds. That recommendation was brought about by reason of the various States indicating the ratio in the law needed reviewing, not in the total number of beds for tuberculosis, but in the method of arriving at that. So the new recommended change for the tuberculosis beds moves from a basis of mortality figures to a basis of morbidity figures, and in the morbidity figures we base the number of beds needed on the number of known active and probably active cases of tuberculosis.

DIFFERENCES BETWEEN RECENT ESTIMATES OF NEED

Mr. BUSBEY. Dr. Cronin, I am just a little bit puzzled and confused about the estimates of the shortage of beds throughout the country. At the top of page 4 of the original statement you submitted to the committee in January, you state:

> It is estimated that from 730,000 to 848,000 additional hospital beds are required.

Then at the top of your revised statement—and neither of these statements are dated, but I assume 1 was compiled last January and 1 at a more recent date—you say:

> As President Eisenhower pointed out in his health message of a few weeks ago, there remains a need for a minimum of 500,000 additional hospital beds throughout the country.

Do these estimates change as rapidly from week to week and from month to month as that? How were these figures arrived at?

Dr. CRONIN. The figures you first referred to were the figures as of a year ago, but the method of computation of those figures is exactly the same as of the figures today. The method of computation of this stated bed shortage of this country is predicated upon the State plans which are submitted to the Surgeon General for approval and are required to be submitted under Public Law 725 of the 79th Congress, as amended, which is the Hospital Survey and Construction Act. Each State indicates in essence their resources, in terms of beds that are acceptable, which means are not a health hazard.

Mr. BUSBEY. Of course that is determined by the board of the State and they can make it as high or as low as they want to.

Dr. CRONIN. It is predicated upon State licensure or laws passed by the legislatures of the States, which, in my opinion, is a very good criterion of what is a health hazard. I cannot accept that a couple of beds in a private home can be regarded as acceptable hospital beds.

Mr. BUSBEY. But some boards are more up to date in their thinking on that than others. I am not mentioning any specific State, but some are not as up to date as others.

Dr. CRONIN. The standards vary from State to State, but in my opinion they represent what the people in that State feel is necessary, and I am for that. All we do in the Public Health Service is to compile the number of bed deficits as compiled in the categories furnished by the various States.

Mr. BUSBEY. How often do the States furnish that?

Dr. CRONIN. Annually.

Mr. BUSBEY. Is that on a calendar-year basis or a fiscal-year basis?

Dr. CRONIN. On a fiscal-year basis, July 1 to June 30.

Mr. BUSBEY. And your last estimate was received when?

Dr. CRONIN. Our last estimate was published on January 27, 1954, and is the deficit as of January 1, 1954.

SHORTAGE BY STATE AND TYPE

Mr. BUSBEY. And will you furnish for the record the table showing the shortages by States?

Dr. CRONIN. We will do that.

(The requested information follows:)

HOSPITAL BEDS IN THE UNITED STATES AS OF JANUARY 1, 1954, ACCORDING TO STATE HOSPITAL PLANS APPROVED UNDER THE HILL-BURTON ACT (PUBLIC HEALTH SERVICE ACT, TITLE VI, AS AMENDED), BEDS IN FEDERAL FACILITIES NOT INCLUDED [1]

General summary—United States and Territories

Type of service	Existing beds			Additional beds needed		Total beds needed [3]
	Total	Acceptable	Non-acceptable [2]	Number	Rate per 1,000 population	
Hospitals:						
All categories	1,242,087	1,083,056	159,031	812,765	5.3	1,887,372
General	589,565	515,934	73,631	188,420	1.2	704,400
Mental	500,568	437,659	62,909	336,989	2.2	773,428
Tuberculosis	101,425	86,035	15,390	21,707	.1	100,467
Chronic	50,529	43,428	7,101	265,649	1.7	309,077
Public Health centers:	*Units*			*Units*		*Units*
Primary	725			1,475		2,200
Auxiliary	902			1,338		2,330

[1] Beds in operation for civilians in Federal facilities of the Veterans' Administration, Indian Service, and Public Health Service were last reported as follows: General, 46,672; mental, 49,752; tuberculosis, 15,906; chronic, 6,712 equals total of 119,042.

[2] As classified by the State agencies, on the basis of fire and health hazards.

[3] According to ratios prescribed in the Public Health Service Act, as follows: General—4.5 beds per 1,000 population (except 5.0 and 5.5 where State population density is from 6 to 12 per square mile or below 6 per square mile); mental—5 beds per 1,000 population; tuberculosis—2.5 beds per average annual death, for latest 5-year period; chronic—2 beds per 1,000 population; health center—not to exceed 1 primary center per 30,000 population (or 1 per 20,000 population when State population density is below 12 per square mile).

NOTE.—For breakdown by States and regions for each type of service, see tables I to VI which follow.

TABLE I.—*All categories—Showing population basis, existing beds, additional need and total need*

[Rates: Per 1,000 population]

State and socio-economic region	Civilian population per plan*		Existing beds					Additional beds needed		Total beds needed [3]
	Date	Thousands	Total		Acceptable		Non-acceptable [1]	Number	Rate	
			Number	Rate	Number	Rate				
United States and Territories		154,673	1,242,087	8.0	1,083,056	7.0	159,031	812,765	5.3	1,887,372
United States		151,834	1,221,824	8.0	1,067,127	7.0	154,697	785,695	5.2	1,845,268
New England		9,278	90,726	9.8	74,701	8.1	16,025	40,377	4.4 [7]	114,122
Connecticut*	July 1951	2,026	21,093	10.4	18,757	9.3	2,336	6,524	3.2	24,586
Maine	do	885	6,407	7.2	4,392	5.0	2,015	6,024	6.8	10,416
Massachusetts	April 1950	[2] 4,691	47,717	10.2	37,437	8.0	10,280	21,423	4.6	58,599
New Hampshire*	July 1951	531	4,574	8.6	4,316	8.1	258	2,209	4.2	6,525
Rhode Island*	April 1950	774	7,346	9.5	6,832	8.8	514	2,698	3.5	9,530
Vermont	July 1951	371	3,589	9.7	2,967	8.0	622	1,499	4.0	4,466
Middle East		36,423	344,146	9.4	296,197	8.1	47,949	148,003	4.1	442,937
Delaware*	July 1951	329	3,456	10.5	2,762	8.4	694	1,264	3.8	4,026
District of Columbia*	April 1950	769	10,564	13.7	8,803	11.4	1,761	2,434	3.2	10,017
Maryland	July 1951	2,361	20,714	8.8	18,923	8.0	1,791	10,361	4.4	29,284
New Jersey	do	[3] 4,972	41,658	8.4	38,612	7.8	3,046	22,648	4.6	61,260
New York	July 1953	[4] 15,514	166,841	10.8	140,631	9.1	26,210	46,682	3.0	187,313
Pennsylvania	July 1951	10,484	88,396	8.4	76,321	7.3	12,075	50,327	4.8	126,648
West Virginia	do	1,994	12,517	6.3	10,145	5.1	2,372	14,287	7.2	24,389
Southeast		31,520	205,965	6.5	184,124	5.8	21,841	204,458	6.5	387,543
Alabama	April 1950	3,053	13,187	4.3	12,588	4.1	599	24,592	8.1	37,180
Arkansas*	do	1,908	12,477	6.5	8,541	4.5	3,936	14,461	7.6	22,951
Florida	July 1951	2,878	21,060	7.3	19,906	6.9	1,154	15,183	5.3	34,636
Georgia	do	3,399	24,873	7.3	22,663	6.7	2,210	18,074	5.3	40,737
Kentucky	do	2,831	16,878	6.0	16,157	5.7	721	19,885	7.0	36,042
Louisiana	do	2,722	21,931	8.1	18,503	6.8	3,428	15,442	5.7	33,945
Mississippi	July 1950	2,170	13,637	6.3	9,842	4.5	3,795	16,653	7.7	26,495
North Carolina	July 1951	4,035	26,211	6.5	26,043	6.5	168	24,710	6.1	50,218
South Carolina	do	2,045	11,840	5.8	11,455	5.6	385	13,678	6.7	25,133
Tennessee	do	3,297	21,427	6.5	21,104	6.4	323	20,220	6.1	41,324
Virginia	do	3,182	22,444	7.1	17,322	5.4	5,122	21,560	6.8	38,882
Southwest		11,539	78,725	6.8	74,023	6.4	4,702	67,388	5.8	141,411
Arizona	July 1952	847	7,147	8.4	6,062	7.2	1,085	5,542	6.5	11,604
New Mexico	July 1951	685	4,589	6.7	4,165	6.1	424	4,827	7.0	8,992
Oklahoma	do	2,231	18,542	8.3	18,302	8.2	240	8,353	3.7	26,655
Texas	do	7,776	48,447	6.2	45,494	5.9	2,953	48,666	6.3	94,160

See footnotes at end of table, p. 606.

TABLE I.—*All categories—Showing population basis, existing beds, additional need and total need*—Continued

State and socio-economic region	Civilian population per plan*		Existing beds					Additional beds needed		Total beds needed [2]
	Date	Thousands	Total		Acceptable		Non-acceptable [1]			
			Number	Rate	Number	Rate		Number	Rate	
Central		40,363	310,781	7.7	264,400	6.6	46,381	222,133	5.5	483,308
Illinois	July 1951	8,746	71,026	8.1	58,911	6.7	12,115	44,027	5.0	102,938
Indiana	do	4,000	24,809	6.2	19,384	4.8	5,515	28,222	7.1	47,606
Iowa	April 1950	2,621	19,420	7.4	13,800	5.3	5,620	16,922	6.5	30,685
Michigan	July 1951	[3] 6,524	52,010	8.0	39,127	6.0	12,883	41,767	6.4	78,933
Minnesota	July 1952	[3] 3,021	24,888	8.2	22,575	7.5	2,313	14,310	4.7	35,936
Missouri*	April 1950	3,952	32,259	8.2	31,234	7.9	1,025	18,291	4.6	49,525
Ohio	July 1951	8,047	57,314	7.1	52,824	6.6	4,490	43,571	5.4	96,395
Wisconsin	do	3,452	28,965	8.4	26,545	7.7	2,420	15,023	4.4	41,290
Northwest		8,004	68,406	8.5	60,568	7.6	7,838	38,784	4.8	99,120
Colorado	July 1951	1,334	13,487	10.1	12,007	9.0	1,480	4,497	3.4	16,504
Idaho*	do	588	3,722	6.3	3,352	5.7	370	3,834	6.5	7,186
Kansas	do	1,922	14,998	7.8	11,436	6.0	3,562	11,413	5.9	22,841
Montana*	April 1950	589	6,141	10.4	5,758	9.8	383	2,604	4.4	8,309
Nebraska	do	[3] 1,326	12,607	9.5	11,801	8.9	806	4,358	3.3	16,159
North Dakota*	do	620	5,868	9.5	5,852	9.4	16	2,559	4.1	8,240
South Dakota	do	[3] 653	5,257	8.1	4,581	7.0	676	3,280	5.0	7,861
Utah*	do	687	3,934	5.7	3,793	5.5	141	4,604	6.7	8,397
Wyoming	August 1952	285	2,392	8.4	1,988	7.0	404	1,635	5.7	3,623
Far West		14,707	123,075	8.4	113,114	7.7	9,961	64,552	4.4	176,827
California	July 1951	10,648	93,703	8.8	86,440	8.1	7,263	42,319	4.0	128,759
Nevada*	do	166	1,246	7.5	1,130	6.8	116	1,080	6.5	2,210
Oregon	do	1,550	10,539	6.8	10,115	6.5	424	8,377	5.4	18,492
Washington	do	2,343	17,587	7.5	15,429	6.6	2,158	12,776	5.5	27,366
Territories		2,839	20,263	7.1	15,929	5.6	4,334	27,070	9.5	42,104
Alaska	April 1950	[3] 129	2,115	16.4	1,379	10.7	736	834	6.5	2,259
Hawaii	July 1950	474	5,415	11.4	3,762	7.9	1,653	2,896	6.1	5,717
Puerto Rico	do	2,210	12,541	5.7	10,596	4.8	1,945	23,182	10.5	33,778
Virgin Islands*	do	26	192	7.2	192	7.2		158	6.0	350

*All plans for fiscal year (1953) except for States shown starred (*).

[1] As classified by the State agencies, on the basis of fire and health hazards.

[2] According to ratios prescribed in the Public Health Service Act, as follows: General—4.5 beds per 1,000 population (except 5.0 and 5.5 where State population density is from 6 to 12 per square mile or below 6 per square mile); mental—5 beds per 1,000 population; tuberculosis—2.5 beds per average annual death, for latest 5-year period; chronic—2 beds per 1,000 population; health center—not to exceed 1 primary center per 30,000 population (or 1 per 20,000 population when State population density is below 12 per square mile).

[3] Total population.

[4] As adjusted by State.

TABLE II.—*General hospital beds—Showing existing beds, additional need and total need, by States and regions*

State and socioeconomic region	Existing beds				Additional beds needed		Total beds needed [2]
	Total	Acceptable		Non-acceptable [1]	Number	Rate per 1,000 population	
		Number	Rate per 1,000 population				
United States and Territories	589,565	515,934	3.3	73,631	188,420	1.2	704,400
United States	579,447	508,764	3.4	70,683	182,647	1.2	691,411
New England	37,185	30,111	3.2	7,074	13,999	1.5	44,110
Connecticut	7,683	7,562	3.7	121	1,794	.9	9,356
Maine	3,402	1,880	2.1	1,522	1,903	2.2	3,783
Massachusetts	20,083	15,739	3.4	4,344	7,478	1.6	23,217
New Hampshire	2,075	1,829	3.4	246	774	1.5	2,603
Rhode Island	2,394	1,940	2.5	454	1,542	2.0	3,482
Vermont	1,548	1,161	3.1	387	508	1.4	1,669
Middle East	148,242	125,449	3.4	22,793	39,208	1.1	164,657
Delaware	1,380	1,368	4.2	12	134	.4	1,502
District of Columbia	4,016	2,623	3.4	1,393	837	1.1	3,460
Maryland	7,781	7,781	3.3	.....	2,843	1.2	10,624
New Jersey	17,013	15,342	3.1	1,671	7,897	1.6	23,239
New York	68,822	57,897	3.7	10,925	11,674	.8	69,571
Pennsylvania	41,999	34,503	3.3	7,496	12,675	1.2	47,178
West Virginia	7,231	5,935	3.0	1,296	3,148	1.6	9,083
Southeast	104,367	94,311	3.0	10,056	49,993	1.6	144,304
Alabama	8,665	8,133	2.7	532	5,640	1.8	13,773
Arkansas	6,324	4,188	2.2	2,136	3,805	2.0	7,993
Florida	10,068	9,332	3.2	736	3,725	1.3	13,057
Georgia	11,228	9,018	2.7	2,210	5,661	1.7	14,679
Kentucky	8,428	7,807	2.8	621	5,376	1.9	13,183
Louisiana	11,627	10,714	3.9	913	2,374	.9	13,088
Mississippi	7,387	5,601	2.6	1,786	4,188	1.9	9,789
North Carolina	13,910	13,742	3.4	168	6,018	1.5	19,760
South Carolina	6,852	6,658	3.3	194	2,975	1.5	9,633
Tennessee	9,759	9,596	2.9	163	5,370	1.6	14,966
Virginia	10,119	9,522	3.0	597	4,861	1.5	14,383
Southwest	44,800	42,311	3.7	2,489	9,965	.9	52,276
Arizona	3,731	3,349	4.0	382	1,014	1.2	4,363
New Mexico	2,830	2,830	4.1	.....	679	1.0	3,509
Oklahoma	8,184	7,944	3.6	240	1,897	.9	9,841
Texas	30,055	28,188	3.6	1,867	6,375	.8	34,563
Central	153,047	134,512	3.3	18,535	46,451	1.2	180,963
Illinois	34,217	29,832	3.4	4,385	6,814	.8	36,646
Indiana	11,573	8,856	2.2	2,717	8,705	2.2	17,561
Iowa	11,329	9,728	3.7	1,601	2,006	.8	11,734
Michigan	24,218	19,555	3.0	4,663	10,627	1.6	30,182
Minnesota	12,643	10,817	3.6	1,826	3,122	1.0	13,939
Missouri	16,870	15,845	4.0	1,025	3,233	.8	19,078
Ohio	29,030	27,655	3.4	1,375	8,289	1.0	35,944
Wisconsin	13,167	12,224	3.5	943	3,655	1.1	15,879
Northwest	38,237	33,582	4.2	4,655	7,017	.9	40,599
Colorado	6,802	6,021	4.5	781	506	.4	6,527
Idaho	2,354	2,024	3.4	330	921	1.6	2,945
Kansas	8,633	7,229	3.8	1,401	1,623	.8	8,852
Montana	3,794	3,473	5.9	321	431	.7	3,904
Nebraska	6,042	5,313	4.0	729	1,176	.9	6,489
North Dakota	3,452	3,436	5.5	16	285	.5	3,721
South Dakota	2,996	2,464	3.8	532	694	1.1	3,158
Utah	2,630	2,489	3.6	141	946	1.4	3,435
Wyoming	1,537	1,133	4.0	404	435	1.5	1,568

See footnotes at end of table, p. 608.

TABLE II.—*General hospital beds—Showing existing beds, additional need and total need, by States and regions*—Continued

State and socioeconomic region	Existing beds				Additional beds needed		Total beds needed [2]
	Total	Acceptable		Non-acceptable [1]	Number	Rate per 1,000 population	
		Number	Rate per 1,000 population				
Far West	53,569	48,488	3.3	5,081	16,014	1.1	64,502
California	39,067	35,487	3.3	3,580	11,126	1.0	46,613
Nevada	806	690	4.2	116	246	1.5	936
Oregon	5,430	5,071	3.3	359	2,011	1.3	7,082
Washington	8,266	7,240	3.1	1,026	2,631	1.1	9,871
Territories	10,118	7,170	2.5	2,948	5,773	2.0	12,989
Alaska	823	441	3.4	382	312	2.4	799
Hawaii	2,166	1,374	2.9	792	752	1.6	2,126
Puerto Rico	7,010	5,236	2.4	1,774	4,709	2.1	9,945
Virgin Islands	119	119	4.5				119

[1] As classified by the State agencies, on the basis of fire and health hazards.
[2] According to ratios prescribed in the Public Health Service Act, as follows: General—4.5 beds per 1,000 population (except 5.0 and 5.5 where State population density is from 6 to 12 per square mile or below 6 per square mile).

TABLE III.—*Mental hospital beds—Showing existing beds, additional need, and total need, by States and regions*

State and socioeconomic region	Existing beds				Additional beds needed		Total beds needed [2]
	Total	Acceptable		Non-acceptable [1]	Number	Rate per 1,000 population	
		Number	Rate per 1,000 population				
United States and Territories	500,568	437,659	2.8	62,909	336,989	2.2	773,428
United States	496,877	433,968	2.9	62,909	326,484	2.2	759,232
New England	39,456	32,635	3.5	6,821	13,753	1.4	46,388
Connecticut	10,024	7,809	3.9	2,215	2,321	1.1	10,130
Maine	2,403	2,352	2.7	51	2,073	2.3	4,425
Massachusetts	19,909	15,598	3.3	4,311	7,855	1.7	23,453
New Hampshire	2,326	2,314	4.4	12	341	.6	2,655
Rhode Island	2,979	2,979	3.8		891	1.2	3,870
Vermont	1,815	1,583	4.3	232	272	.7	1,855
Middle East	153,396	137,165	3.8	16,231	46,169	1.3	182,114
Delaware	1,451	835	2.5	616	810	2.5	1,645
District of Columbia	5,233	5,065	6.6	168			3,845
Maryland	7,493	7,368	3.1	125	4,437	1.9	11,805
New Jersey	19,897	18,889	3.8	1,008	5,971	1.2	24,860
New York	76,431	65,955	4.3	10,476	11,614	.7	77,569
Pennsylvania	39,143	36,277	3.5	2,866	16,143	1.5	52,420
West Virginia	3,748	2,776	1.4	972	7,194	3.6	9,970

See footnotes at end of table, p. 609.

TABLE III.—*Mental hospital beds—Showing existing beds, additional need, and total need, by States and regions*—Continued

State and socioeconomic region	Existing beds				Additional beds needed		Total beds needed [2]
	Total	Acceptable		Non-acceptable [1]	Number	Rate per 1,000 population	
		Number	Rate per 1,000 population				
Southeast	79,630	68,595	2.2	11,035	89,076	2.8	157,671
Alabama	3,351	3,351	1.1	----------	11,914	3.9	15,265
Arkansas	4,500	2,700	1.4	1,800	6,840	3.6	9,540
Florida	7,942	7,710	2.7	232	6,680	2.3	14,390
Georgia	10,916	10,916	3.2	----------	6,079	1.8	16,995
Kentucky	6,774	6,704	2.4	70	7,451	2.6	14,155
Louisiana	8,584	6,101	2.2	2,483	7,599	2.8	13,610
Mississippi	5,573	3,591	1.7	1,982	7,256	3.3	10,847
North Carolina	9,138	9,138	2.3	----------	11,037	2.7	20,175
South Carolina	3,859	3,724	1.8	135	6,501	3.2	10,225
Tennessee	8,328	8,241	2.5	87	8,318	2.5	16,559
Virginia	10,665	6,419	2.0	4,246	9,491	3.0	15,910
Southwest	24,055	22,983	2.0	1,072	34,712	3.0	57,695
Arizona	2,360	1,712	2.0	648	2,523	3.0	4,235
New Mexico	1,208	784	1.1	424	2,641	3.9	3,425
Oklahoma	8,741	8,741	3.9	----------	2,414	1.1	11,155
Texas	11,746	11,746	1.5	----------	27,134	3.5	38,880
Central	122,209	99,703	2.5	22,506	102,112	2.5	201,815
Illinois	27,891	20,422	2.3	7,469	23,309	2.7	43,730
Indiana	11,177	9,082	2.3	2,095	10,918	2.7	20,000
Iowa	5,671	3,304	1.3	2,367	9,801	2.7	13,105
Michigan	20,115	12,880	2.0	7,235	19,740	3.0	32,620
Minnesota	9,972	9,550	3.2	422	5,555	1.8	15,105
Missouri	12,485	12,485	3.2	----------	7,275	1.8	19,760
Ohio	22,587	20,359	2.5	2,228	19,876	2.5	40,235
Wisconsin	12,311	11,621	3.4	690	5,639	1.6	17,260
Northwest	25,908	23,288	2.9	2,620	16,726	2.1	40,014
Colorado	6,006	5,582	4.2	424	1,088	.8	6,670
Idaho	1,278	1,278	2.2	----------	1,662	2.8	2,940
Kansas	5,752	3,633	1.9	2,119	5,977	3.1	9,610
Montana	1,950	1,950	3.3	----------	995	1.7	2,945
Nebraska	5,192	5,115	3.9	77	1,510	1.1	6,625
North Dakota	2,000	2,000	3.2	----------	1,100	1.8	3,100
South Dakota	1,896	1,896	2.9	----------	1,368	2.1	3,264
Utah	1,134	1,134	1.7	----------	2,301	3.3	3,435
Wyoming	700	700	2.5	----------	725	2.5	1,425
Far West	52,223	49,599	3.4	2,624	23,936	1.6	73,535
California	40,733	38,881	3.7	1,852	14,359	1.3	53,210
Nevada	400	400	2.4	----------	430	2.6	830
Oregon	4,552	4,552	2.9	----------	3,198	2.1	7,750
Washington	6,538	5,766	2.5	772	5,949	2.5	11,715
Territories	3,691	3,691	1.3	----------	10,505	3.7	14,196
Alaska	375	375	2.9	----------	268	2.1	643
Hawaii	905	905	1.9	----------	1,465	3.1	2,370
Puerto Rico	2,396	2,396	1.1	----------	8,654	3.9	11,050
Virgin Islands	15	15	.6	----------	118	4.5	133

[1] As classified by the State agencies, on the basis of fire and health hazards.
[2] According to ratios prescribed in the Public Health Service Act, as follows: Mental—5 beds per 1,000 population.

TABLE IV.—*Tuberculosis hospital beds—Showing mortality basis, existing beds, additional need and total need, by States and regions*

State and socioeconomic region	Tuberculosis deaths (5 year annual average)		Existing beds			Additional beds		Total beds needed [2]
	Period	Number	Total	Acceptable	Nonacceptable [1]	Number needed	Rate per 1,000 population	
United States and Territories		40,172	101,425	86,035	15,390	21,707	0.14	100,467
United States		36,476	96,332	81,527	14,805	16,033	.11	91,226
New England		2,027	6,903	5,480	1,423	545	.06	5,069
Connecticut	1947–51	419	1,713	1,743				1,048
Maine	1947–51	175	442		442	438	.49	438
Massachusetts	1948–52	1,019	3,787	2,809	978			2,548
New Hampshire	1940–44	82	133	133		72	.14	205
Rhode Island	1943–47	252	622	622		8	.01	630
Vermont	1948–52	80	176	173	3	27	.07	200
Middle East		9,434	26,575	19,834	6,741	3,795	.10	23,586
Delaware	1947–51	97	289	223	66	20	.06	243
District of Columbia	1946–50	470	1,065	940	125	235	.31	1,175
Maryland	1948–52	853	2,021	1,718	303	415	.18	2,133
New Jersey	1947–51	1,287	3,257	3,100	157	117	.02	3,217
New York	1948–52	3,755	13,282	8,651	4,631	737	.05	9,388
Pennsylvania	1948–52	2,433	5,283	3,928	1,355	2,154	.21	6,082
West Virginia	1947–51	539	1,378	1,274	104	117	.06	1,348
Southeast		8,998	17,272	16,705	537	6,863	.22	22,529
Alabama	1948–52	814	870	792	67	1,244	.41	2,036
Arkansas	1947–51	641	1,653	1,653				1,602
Florida	1948–52	577	1,886	1,886				1,433
Georgia	1947–51	906	2,157	2,157		108	.03	2,265
Kentucky	1940–44	1,217	1,364	1,334	30	1,708	.60	3,042
Louisiana	1948–52	721	1,444	1,412	32	391	.14	1,803
Mississippi	1947–51	608	650	650		870	.40	1,520
North Carolina	1947–51	885	2,778	2,778				2,213
South Carolina	1947–51	474	882	823	56	350	.18	1,185
Tennessee	1947–51	1,265	1,999	1,926	73	1,279	.39	3,265
Virginia	1949–53	890	1,600	1,321	279	904	.28	2,225
Southwest		3,344	8,045	7,028	1,017	1,332	.12	8,360
Arizona	1948–52	525	929	914	15	398	.47	1,312
New Mexico	1947–51	275	453	453		235	.31	688
Oklahoma	1940–44	478	1,135	1,135		60	.03	1,195
Texas	1948–52	2,066	5,528	4,526	1,002	639	.08	5,165
Central		7,921	23,735	21,047	2,688	1,932	.05	19,804
Illinois	1948–52	2,028	5,070	5,070				5,070
Indiana	1945–50	818	1,707	1,154	553	891	.22	2,045
Iowa	1947–51	242	773	641	132			604
Michigan	1948–52	1,232	5,845	5,044	801			3,083
Minnesota	1948–52	340	1,864	1,799	65			850
Missouri	1945–50	1,113	1,894	1,894		889	.22	2,783
Ohio	1948–52	1,649	4,462	3,920	542	202	.03	4,122
Wisconsin	1946–50	499	2,120	1,525	595			1,247
Northwest		1,001	2,762	2,199	563	535	.07	2,502
Colorado	1947–51	256	638	[3] 363	275	276	.21	639
Idaho	1948–52	50	90	50	40	75	.13	125
Kansas	1948–51	214	585	543	42			535
Montana	1947–51	113	397	335	62			282
Nebraska	1940–44	158	290	290		105	.08	395
North Dakota	1946–50	71	350	350				179
South Dakota	1948–52	54	262	118	144	16	.02	134
Utah	1947–51	61	100	100		53	.08	153
Wyoming	1948–52	24	50	50		10	.04	60

See footnote s at end of table, p. 611.

TABLE IV.—*Tuberculosis hospital beds—Showing mortality basis, existing beds, additional need and total need, by States and regions*—Continued

State and socioeconomic region	Tuberculosis deaths (5-year annual average)		Existing beds			Additional beds		Total beds needed [2]
	Period	Number	Total	Acceptable	Nonacceptable [1]	Number needed	Rate per 1,000 population	
Far West		3,751	11,070	9,234	1,836	981	0.07	9,376
California	1946–50	3,044	8,223	6,769	1,454	841	.08	7,610
Nevada	1947–51	45	40	40		72	.43	112
Oregon	1947–51	224	557	492	65	68	.04	560
Washington	1947–51	438	2,250	1,933	317			1,094
Territories		3,696	5,093	4,508	585	5,674	2.00	9,241
Alaska	1948–52	224	876	522	354	38	.30	560
Hawaii	1948–52	109	1,274	1,214	60			273
Puerto Rico	1947–51	3,345	2,938	2,767	171	5,596	2.53	8,363
Virgin Islands	1940–44	18	5	5		40	1.51	45

[1] As classified by the State agencies, on the basis of fire and health hazards.
[2] According to ratios prescribed in the Public Health Service Act, as follows: Tuberculosis—2.5 beds per average annual death, for latest 5-year period.
[3] 651 additional tuberculosis beds not available to residents of Colorado.

TABLE V.—*Chronic disease hospital beds—Showing existing beds, additional need and total need, by States and regions*

State and socio-economic region	Existing beds				Additional beds needed		Total beds needed [2]
	Total	Acceptable		Nonacceptable [1]	Number	Rate per 1,000 population	
		Number	Rate per 1,000 population				
United States and Territories	50,529	43,428	0.28	7,101	265,649	1.7	309,077
United States	49,168	42,868	.28	6,300	260,531	1.7	303,399
New England	7,182	6,475	.70	707	12,080	1.3	18,555
Connecticut	1,643	1,643	.81		2,409	1.2	4,052
Maine	160	160	.18		1,610	1.8	1,770
Massachusetts	3,938	3,291	.70	647	6,090	1.3	9,381
New Hampshire	40	40	.08		1,022	1.9	1,062
Rhode Island	1,351	1,291	1.67	60	257	.3	1,548
Vermont	50	50	.13		692	1.9	742
Middle East	15,933	13,749	.38	2,184	58,831	1.6	72,580
Delaware	336	336	1.02		300	.9	636
District of Columbia	250	175	.23	75	1,362	1.8	1,537
Maryland	3,419	2,056	.87	1,363	2,666	1.1	4,722
New Jersey	1,491	1,281	.26	210	8,663	1.7	9,944
New York	8,306	8,128	.52	178	22,657	1.5	30,785
Pennsylvania	1,971	1,613	.15	358	19,355	1.8	20,968
West Virginia	160	160	.08		3,828	1.9	3,988

See footnotes at end of table, p. 612.

TABLE V.—*Chronic disease hospital beds—Showing existing beds, additional need and total need, by States and regions*—Continued

State and socio economic region	Existing beds				Additional beds needed		Total beds needed [2]
	Total	Acceptable		Non acceptable [1]	Number	Rate per 1,000 population	
		Number	Rate per 1,000 population				
Southeast	4,726	4,513	.14	213	58,526	1.9	63,039
Alabama	312	312	.10		5,794	1.9	6,106
Arkansas					3,816	2.0	3,816
Florida	1,164	978	.34	186	4,778	1.7	5,756
Georgia	572	572	.17		6,226	1.8	6,798
Kentucky	312	312	.11		5,350	1.9	5,662
Louisiana	276	276	.10		5,168	1.9	5,444
Mississippi	27			27	4,339	2.0	4,339
North Carolina	415	415	.10		7,655	1.9	8,070
South Carolina	247	247	.12		3,843	1.9	4,090
Tennessee	1,341	1,341	.41		5,253	1.6	6,594
Virginia	60	60	.02		6,304	2.0	6,364
Southwest	1,825	1,701	.15	124	21,379	1.9	23,080
Arizona	127	87	.10	40	1,607	1.9	1,694
New Mexico	98	98	.14		1,272	1.9	1,370
Oklahoma	482	482	.22		3,982	1.8	4,464
Texas	1,118	1,034	.13	84	14,518	1.9	15,552
Central	11,790	9,138	.23	2,652	71,588	1.8	80,726
Illinois	3,848	3,587	.41	261	13,905	1.6	17,492
Indiana	442	292	.07	150	7,708	1.9	8,000
Iowa	1,647	127	.05	1,520	5,115	2.0	5,242
Michigan	1,832	1,648	.25	184	11,400	1.7	13,048
Minnesota	409	409	.14		5,633	1.9	6,042
Missouri	1,010	1,010	.26		6,894	1.7	7,904
Ohio	1,235	890	.11	345	15,294	1.9	16,094
Wisconsin	1,367	1,175	.34	192	5,729	1.7	6,904
Northwest	1,499	1,499	.19		14,506	1.8	16,005
Colorado	41	41	.03		2,627	2.0	2,668
Idaho					1,176	2.0	1,176
Kansas	31	31	.02		3,813	2.0	3,844
Montana					1,178	2.0	1,178
Nebraska	1,083	1,083	.82		1,567	1.2	2,650
North Dakota	66	66	.11		1,174	1.9	1,240
South Dakota	103	103	.16		1,202	1.8	1,305
Utah	70	70	.10		1,304	1.9	1,374
Wyoming	105	105	.37		465	1.6	570
Far West	6,213	5,793	.39	420	23,621	1.6	29,414
California	5,680	5,303	.80	377	15,993	1.5	21,296
Nevada					332	2.0	332
Oregon					3,100	2.0	3,100
Washington	533	490	.21	43	4,196	1.8	4,686
Territories	1,361	560	.20	801	5,118	1.8	5,678
Alaska	41	41	.32		216	1.7	257
Hawaii	1,070	269	.57	801	679	1.4	948
Puerto Rico	197	197	.09		4,223	1.9	4,420
Virgin Islands	53	53	2.00				53

[1] As classified by the State agencies, on the basis of fire and health hazards.
[2] According to ratios prescribed in the Public Health Service Act, as follows: Chronic disease—2 beds per 1,000 population.

TABLE VI.—*Public health centers—Showing existing facilities, additional program, and total program, by States and regions*

State and socio-economic region	Public health centers				Auxiliary facilities		
	Existing acceptable [1]	Additional programed	Total program		Existing acceptable	Additional programed	Total program
			As planned	Maximum allowed [2]			
United States and Territories	725	1,475	2,200	5,256	902	1,338	2,330
United States	682	1,421	2,103	5,159	838	1,307	2,145
New England	32	76	108	306	.....	13	13
Connecticut	9	4	13	67	.....	.....	.....
Maine	.....	25	25	30	.....	.....	.....
Massachusetts	16	32	48	154	.....	.....	.....
New Hampshire	.....	10	10	18	.....	.....	.....
Rhode Island	7	.....	7	25	.....	.....	.....
Vermont	.....	5	5	12	.....	13	13
Middle East	56	283	339	1,213	460	61	521
Delaware	.....	5	5	10	.....	.....	.....
District of Columbia	1	5	6	26	24	.....	24
Maryland	13	7	20	79	148	1	149
New Jersey	.....	42	42	166	.....	.....	.....
New York	30	158	188	517	288	.....	288
Pennsylvania	9	47	56	349	.....	.....	.....
West Virginia	3	19	22	66	.....	60	60
Southeast	325	395	720	1,048	216	792	1,008
Alabama	38	27	65	102	7	22	29
Arkansas	9	22	31	64	3	42	45
Florida	4	31	35	95	22	160	182
Georgia	32	22	54	113	52	78	130
Kentucky	29	47	76	94	3	37	40
Louisiana	29	28	57	89	6	52	58
Mississippi	33	38	71	70	22	152	174
North Carolina	52	49	101	135	3	7	10
South Carolina	26	20	46	70	65	178	243
Tennessee	40	58	98	110	33	64	97
Virginia	33	53	86	106	.....	.....	.....
Southwest	36	72	108	410	47	122	169
Arizona	3	6	9	43	4	13	17
New Mexico	11	7	18	34	24	14	38
Oklahoma	7	25	32	74	9	57	66
Texas	15	34	49	259	10	38	48
Central	121	470	591	1,341	46	37	83
Illinois	3	287	290	290	.....	.....	.....
Indiana	2	35	37	133	1	.....	1
Iowa	1	26	27	87	.....	.....	.....
Michigan	35	23	58	217	12	.....	12
Minnesota	3	8	11	100	.....	1	1
Missouri	13	37	50	131	.....	.....	.....
Ohio	64	18	82	268	32	.....	32
Wisconsin	.....	36	36	115	1	36	37
Northwest	36	83	119	320	9	132	141
Colorado	4	14	18	44	3	27	30
Idaho	1	5	6	29	3	14	17
Kansas	15	23	38	53	.....	1	1
Montana	1	12	13	29	.....	1	1
Nebraska	4	7	11	44	.....	85	85
North Dakota	6	.....	6	31	.....	.....	.....
South Dakota	1	11	12	32	1	.....	1
Utah	3	6	9	34	2	.....	2
Wyoming	1	5	6	14	.....	4	4

See footnotes at end of table, p. 614.

TABLE VI.—*Public health centers—Showing existing facilities, additional program, and total program, by States and regions*—Continued

State and socio-economic region	Public health centers				Auxiliary facilities		
	Existing acceptable [1]	Additional programed	Total program		Existing acceptable	Additional programed	Total program
			As planned	Maximum allowed [2]			
Far West	76	42	118	521	60	150	210
California	54	23	77	384	43	89	132
Nevada	2	1	3	8			
Oregon	11	7	18	51	3	16	19
Washington	9	11	20	78	14	45	59
Territories	43	54	97	97	154	31	185
Alaska	6		6	6	22	1	23
Hawaii	3	13	16	16	1	26	27
Puerto Rico	34	40	74	74	131		131
Virgin Islands		1	1	1		4	4

[1] As classified by the State agencies, on the basis of fire and health hazards.
[2] According to ratios prescribed in the Public Health Service Act, as follows: Public health centers—not to exceed 1 primary center per 30,000 population (or 1 per 20,000 population when State population density is below 12 per square mile).

Mr. BUSBEY. What is the total figure as of January 1, 1954?

Dr. CRONIN. The total number of hospital beds short in all categories, according to this public material, predicated on the State plans, is 812,765, from which can be subtracted 119,042 beds, which represent beds in operation for civilians in the Federal facilities of the Veterans' Administration, the Indian Service, and the Public Health Service hospitals. The aggregate of that, after subtraction, would be 694,100.

SHORTAGE OF HOSPITAL BEDS IN KANSAS

Mr. BUSBEY. What does the tabulation show, for instance, for the State of Kansas?

Dr. CRONIN. In each category, or in all categories?

Mr. BUSBEY. First, what is the total shortage of hospital beds?

Dr. CRONIN. In all categories, in the State of Kansas—and by all categories I mean general, TB, chronic, and mental—the number of beds that the State of Kansas has——

Mr. BUSBEY. Give it to us by each category and then the total, if you can.

ESTIMATED HOSPITAL-BED NEEDS

Dr. CRONIN. All right, sir. The State of Kansas, in the general-hospital-bed category, currently has 8,630 beds. The number of acceptable beds is 7,229. The number of nonacceptable beds is 1,401. The total number of beds needed in the State of Kansas is 8,852. Therefore, the number of additional general hospital beds needed in the State of Kansas is 1,623. And those are State of Kansas official figures. That is in the general-hospital category. If you wish the others, I can give them to you.

Mr. BUSBEY. We might as well have the others at this time.

Dr. CRONIN. In the mental-hospital category, the State of Kansas has 5,752 beds, of which 3,633 are acceptable. They have 2,119

nonacceptable beds. The State of Kansas in the mental-hospital-bed category needs 9,610 beds. So they need today, then, 5,977 beds.

In the tuberculosis-hospital category, the State of Kansas has 585 beds of which 543 are acceptable. They have 42 nonacceptable beds. The State of Kansas total needs are 535 beds and according to the State of Kansas State plan they have no need for any additional tuberculosis beds.

In the chronic-disease category, the State of Kansas has 31 beds. All of them are acceptable. According to the State plan of the State of Kansas, Kansas needs 3,844 chronic-disease beds in, toto. Having 31 subtracted from that amount, the State of Kansas needs at the present time to construct 3,813 chronic-disease beds.

The public-health centers is the only remaining category.

Mr. BUSBEY. Let us have that.

Dr. CRONIN. The State of Kansas, in public-health centers, has 15 existing public-health centers. They have 23 additional programed, for a total of 38. They have a maximum allowed under the Hospital Survey and Construction Act of 63, but have only programed 23.

Mr. BUSBEY. What is the grand total for all categories?

Dr. CRONIN. The grand total for the State of Kansas in the general, TB, chronic, and mental-disease categories but not including public-health centers, because that is not a bed-furnishing facility—the State of Kansas has a total of 14,998 existing beds in the 4 categories, of which 11,436 are acceptable and 3,562 are nonacceptable. The number of hospital beds needed by the State of Kansas has been estimated by the State of Kansas as 22,841, which leaves 11,413 hospital beds needed to be constructed in all 4 of the categories.

ARTICLE "TOO FAST ON HOSPITALS"

Mr. BUSBEY. The reason why I selected Kansas was because an article from the Kansas City Times of April 13, 1954, was brought to my attention. This article is headed "Too Fast on Hospitals—Some Kansas Centers May Have to Close." The article reads:

Basing his conclusions on bed-occupancy records, C. C. Lamley tells KU group of overexpansion in State.

I take it that must be the Kansas University group.

Kansas now has too many hospitals from the viewpoint of use and economic operation, Carl C. Lamley told a postgraduate assembly of 170 anesthesiologists yesterday afternoon at the University of Kansas Medical Center.

Lamley, director of the Stormont-Vail Hospital, Topeka, based his conclusions on bed-occupancy records.

"Kansas has built 58 hospitals and 28 additions to others in the last 6 years," Lamley said. It now has 123 hospitals with 7,000 beds, an increase of 3,100 beds in 6 years.

"The State has 4 beds for each 1,000 population, whereas the expert view is that 2½ beds per 1,000 for rural areas is correct," Lamley added.

"As a result," he went on, "the number of unoccupied beds has zoomed from an average of 1,200 4 years ago to almost 2,500 now." This doubling of vacant beds is due partly, Lamley added, to community pride in building hospitals.

This pride, pardonable and understandable because it reflects desire to create a good workshop for keeping doctors in rural areas, has overridden caution on Federal aid for hospital building, in Lamley's opinion.

"The bed vacancies have hit the small hospitals hardest," Lamley said. Occupancy in Kansas hospitals with 10 to 25 beds has dropped to 45 percent, and in hospitals with 25 to 50 beds, to 52 percent. But occupancy in hospitals with 100 beds and over is averaging 73 percent, enough for economic operation.

"It is almost impossible," Lamley said, "to operate a hospital with fewer than 50 beds by modern standards of care and cost, without deficits.

"Most hospitals operate on a shoestring, capitalwise, and it appears likely some of the half-occupied ones in Kansas will have to close soon."

If some hospitals close, Lamley added, it won't mean necessarily that they will not be used. He predicted some would be converted to places for chronic illnesses and convalescent care. Some would be taken over by religious groups, some by trade-union organizations wishing to offer package medical care to their members.

The anesthesiologist, as a private practitioner in his specialty, might not like these trends, Lamley added.

Virtually all hospitals will be clamoring for Government subsidy, particularly of their nursing schools and educational programs, he predicted.

That is the end of the quotation on the hospital situation by Mr. Lamley. Now somebody is obviously wrong. I just thought I would read that article, Doctor, and ask for your comment.

Dr. CRONIN. Mr. Chairman, I could comment for probably a week on that, but I won't. I do have these very few concise and brief comments to make.

Mr. BUSBEY. Maybe this has been called to your attention previously?

Dr. CRONIN. I have never seen it before, nor heard of it.

I would like to point out, first, under this program the State of Kansas has utilized Federal funds and built 34 general hospitals. Also, under this program, the Stormont-Vail Hospital, at Topeka, Kans., from which the person who makes those remarks comes, did utilize $75,068 of Federal funds to build a hospital nurses' training school, and $1,330,436 of Federal funds, which is a share of the $3,326,090 hospital, which added 183 beds which are in the Stormont-Vail Hospital.

The author of the article undoubtedly is quite familiar with the operation of the hospital survey and construction program, because he was a participant in it and one of the larger participants in it, because he has in excess of $1 million in Federal funds.

USE OF AVERAGE OCCUPANCY RATE DATA

No. 2. As far as the occupancy rates of the hospital are concerned, the average occupancy rate of hospitals, in my opinion, is only one of the many things which is an indication of the utilization of a hospital. The average occupancy rate of a hospital is just exactly what it says it is—it is an average. And when you have an average, you have something above a certain number, which is 50, and something below a certain number, which is 50, and the average occupancy rate of any hospital means that under those 2 standards of occupancy rates, that on some days of the year that hospital, regardless of its size, varies in excess of half full and, on some days of the year, varies in minimum of half full.

Now the way to determine the effective utilization of a hospital is not by an average of those occupancy rates, but to get specific figures of how many days in a year, and as of each day of the year, what was the occupancy rate of that hospital on that particular day of the year. I can tell you that same thing is true to a certain extent of any other public facility that has beds in it, such as hotels. Hospitals do not have patients in there on Christmas Day if they can help it. People

like to go home, and the occupancy rate of the hospital on Christmas Day is very low.

Mr. BUSBEY. But Christmas is just 1 day out of a year of 365 days.

Dr. CRONIN. That is right. Now on the 5th and 4th of July, and in some months of the year, such as the spring and fall months, because medical conditions are seasonal, we do find our heaviest occupancy rate in the hospitals.

So the average occupancy rate to me, by itself, is not anything indicative of what happened in that hospital, adding up all of those things. Averages in my opinion are not any indication of the utilization of a hospital.

Mr. BUSBEY. Yet every hospital in the country figures averages.

Dr. CRONIN. That is right, but to people in the hospital field those averages are utilized for a purpose that is very worthwhile and are usually utilized for the purpose of determining the utilization of those beds, because that is one factor in bed utilization. But if you had 1 bed in a hospital, and that hospital had 1 patient in it, and he stayed in it all year long, you would have an average utilization of 100 percent. If the patient was not in the bed all year long, but only half of the year, you would only have an occupancy of 50 percent.

Mr. BUSBEY. I am surprised you would use an illustration of only one bed.

Dr. CRONIN. I could use 100.

Mr. BUSBEY. I think that would be more in keeping.

Dr. CRONIN. If we had a 100-bed hospital, and it had 100 patients in it and they were the same patients, and they stayed in that hospital for 365 days of the year, your hospital occupancy would be 100 percent for every day of the year. But if you had some patients in the hospital for only half of the year, that hospital then would only be occupied for 50 percent of the time, and it would not be an indication of the bed utilization at all in my opinion.

The other thing I would like to comment on is the Kansas State plan and, in my opinion, Kansas has done a very fine job on the hospital program. A lot of the effort has come I think from the very fine efforts of Dr. Franklin Murphy, dean of the medical school, then vice president of the university, and currently president of the University of Kansas.

KANSAS ESTIMATES

Mr. BUSBEY. What I have had to say is no reflection on the planning board or anyone else in the State of Kansas; but when I read something like this, I naturally wonder who is right.

Dr. CRONIN. I think the planning in Kansas was done by the State agency people and that the planning board, known as the hospital advisory council, was appointed by the Governor of Kansas, made up of two kinds of people; those who represent hospital patients and do the work with patients—doctors, nurses, hospital administrators, and so forth—and those who represent the consumer public. In each State they are the people who represent the medical interests, the labor interests, the merchant interests, the education interests, and religious interests. Those are the people who approve the work

there and are the people in the State of Kansas to say that their State plan, as submitted to the Surgeon General, reflects the thought of the State of Kansas and all of the people, as to what they want to do with this Federal money. And I personally would accept the deliberations and consider the suggestions and decisions of the State agency of the State of Kansas, and the recommendations from the hospital advisory council on what they are doing, and want to do, than to have the Federal Government, in my capacity, indicate what Kansas should do. I just do not believe in that, sir.

Mr. BUSBEY. Are those statements by Mr. Lamley untrue?

Dr. CRONIN. I have not read the article; I heard you read it to me. I would be glad to check on it.

Dr. MASUR. May I make a comment there?

Mr. BUSBEY. I think that is very serious, if those statements are not true. I think it is serious for somebody who evidently has a good professional background to make such statements if they are not well founded. He is director of the Stormont-Vail Hospital which, you say, has participated in the Hill-Burton program.

Dr. MASUR. I am acquainted with the gentleman somewhat, and may I say if one analyzes the statement—and this is the first time I have heard those pronouncements by him, in terms of his own qualifications, he generalizes on this subject that goes back into a great number of factors which Dr. Cronin has related to the committee here.

He has not, for example, differentiated in any way between the varying levels in the different categories such as medical beds, mental beds, chronic-disease beds, and so forth. He has taken into consideration the number of beds in Kansas which are not acceptable in terms of the Government standards.

Mr. BUSBEY. Yet, according to Dr. Cronin's testimony, there is a shortage in all categories.

Dr. MASUR. That is correct.

Dr. CRONIN. Except tubercular.

Dr. MASUR. He has failed either to understand or to set forth before this group of people how many hospital accommodations there were. Mind you, he was not talking to a hospital audience, he was talking to a special medical audience, and he has made no reference to the differential in occupancy rates which are expected and accepted for different size hospitals. He has not taken into account the rapidity of turnover in those different types of hospitals, depending on the nature of cases they serve, nor given thought to whether some hospitals are serving more or less complicated cases.

Finally, I do know that many of the gentleman's colleagues in the American Hospital Association would agree with some hasty conclusions he has arrived at in that presentation.

USE OF AVERAGE OCCUPANCY DATA

Mr. BUSBEY. He used the example of a hospital with 100 beds and says an average of 73 percent occupancy is enough for economical operation.

After Congress adjourned last session, I visited quite a number of hospitals throughout the country and, in talking to the administrators of those various hospitals, always in our discussions they went into

what they considered was the average occupancy they had to have in order to break even and above which they usually would show a profit, and below which they would show a loss. While I appreciate that other factors must be taken into consideration, I think average occupancy as a yardstick for measuring the efficient operation of a hospital certainly is a basic one.

Dr. MASUR. I would certainly agree with you. It is a very useful fiscal yardstick, but it has very sharp limitations in terms of other aspects of service to patients.

Mr. BUSBEY. While that is not the only aspect we have to consider, we are certainly dealing with the fiscal aspect in this committee.

Dr. MASUR. That is correct.

Mr. BUSBEY. In your Division of the Public Health Service, you certainly have to deal with it, because you are the ones that allot the money for these hospitals.

Dr. MASUR. When I said "fiscal," I was not referring to the budgetary operation on an institution basis.

Mr. BUSBEY. Have you had any indication that somewhere in the foreseeable future some of the hospitals in Kansas might have to close because of their low occupancy?

Dr. CRONIN. We have had no indication from anyone that the hospitals in Kansas might have to close. I think the best source of that information and also perhaps for comments on the article you quoted would be the Kansas authority, Dr. Hood, who is State health officer of Kansas. He is the person responsible for the operation of the hospital survey and construction program in Kansas, and also the man in Kansas responsible for hospital licensing, and I assume would know about the financial status, or whatever the status might be that forces the hospital to close.

BASIS FOR ALLOCATING FUNDS TO STATES

Mr. BUSBEY. You get profit-and-loss statements or operating statements from some hospitals?

Dr. CRONIN. No, sir; we do not. We do not request them and would have no use for them were they furnished to us.

Mr. BUSBEY. How do you determine, then, for the different types of hospital construction, whether the projects to which you have allocated funds have been economically sound?

Dr. CRONIN. The law specifically states the method in which the allotment will be made to the States. It is a statutory formula. It is based primarily on the population and wealth per capita in the State.

Mr. BUSBEY. Should not that formula take into consideration your experience and be revised as experience may indicate it is not entirely satisfactory?

Dr. CRONIN. That in my opinion is the prerogative of Congress, and I would not indicate at this time other than to say——

Mr. BUSBEY. What do you mean by "prerogative of Congress"?

Dr. CRONIN. I mean basically the law says that allotments will be given to the States according to a mathematical formula. That is my only obligation——

Mr. BUSBEY. Who is it that sends the legislative proposals for hospital construction to the House Committee on Interstate and Foreign Commerce to consider?

Dr. CRONIN. Anybody has that privilege.

Mr. BUSBEY. I did not ask that; I asked who is it. For instance, there was a bill sent up here for $60 million authorization for categorical grants. Now who prepared that bill, Doctor?

Dr. CRONIN. I do not know, sir, who prepared that.

Mr. LARMON. That would be the Department in its recommendations, of course, to legislative committees.

Mr. BUSBEY. Did the Department consult the head of Hospital Facilities Division on that?

Dr. DEARING. Yes, sir.

Mr. BUSBEY. I thought it was strange if you did not. That was the reason I was directing my questions to Dr. Cronin.

Mr. LARMON. It is a departmental recommendation.

Mr. BUSBEY. Then you have people from your Department come up before the Interstate and Foreign Commerce Committee and testify on such legislation, including the formula it prescribes.

Mr. LARMON. That is correct.

Mr. BUSBEY. I was on the Interstate and Foreign Commerce Committee for awhile and I know a little bit about its operation. Of necessity they must often take the recommendation of the Department on that particular question. Is not that right?

Mr. LARMON. You would have to tell me from your experience in sitting on such committee.

Mr. BUSBEY. Well who testified on the formula, except the Department?

Mr. LARMON. I was not present; so I cannot say who did.

Mr. BUSBEY. Dr. Cronin, do you know?

Dr. CRONIN. I do not know who testified on the formula. I do know the man who was probably most responsible for the formula was the late Senator Robert Taft.

Mr. BUSBEY. I am not talking about originally. Let us get back to what I am talking about. I am talking about the new legislation you recommended for $60 million specifically for these categorical grants, and I would like to just stay with it until we follow it all the way through.

Dr. DEARING. The Department recommendations in connection with the current pending amendments did not involve a change in the formula. That was the one developed at the time the original act was passed, after testimony from public agencies, such as consumer groups, hospital groups, health groups, as well as the executive branch of the Federal Government. And, as Dr. Cronin says, that formula was finally written by committees of Congress, in which Senator Taft played a large part, and it has worked in our view very well and on the whole has been so equitable that the Department did not recommend a change in the formula in connection with the new amendment. As a matter of fact, it actually recommended that the same formula for alloting funds to the States be applied also in connection with our recommendations for a modification of public-health grants.

That, as well as I know, is the history of the formula.

Mr. BUSBEY. You have legislation passed by the House for these categorical grants. The proposed authorization is $60 million per

year. Say after 10 years of operation you find in certain instances that in your opinion the money ought to be allotted on a different basis. Is it not the responsibility of the Department to suggest changes to the Congress?

Dr. DEARING. Mr. Chairman, I would reply to that that if in the Department's opinion it is desirable that a different formula be established, it would be recommended to the proper committee; but this particular formula we find very satisfactory.

Mr. BUSBEY. Do not you think the Department has the responsibility——

Dr. DEARING. We have the responsibility to reexamine the formula.

Mr. BUSBEY. If you find it to be wrong in the first place, or that something else would work better in your judgment, you should call that to the attention of Congress?

Dr. DEARING. That is entirely correct. But we find this formula in this program very satisfactory.

Mr. BUDGE. Now if we assume what this director of the hospital in Kansas says is true, that some of those hospitals are likely to be closed, and then we take your further statement that you do not ask for any operating financial reports from the hospitals, would you feel it would be proper for the Department to urge the building of new hospitals in Kansas?

Dr. DEARING. I am taking Dr. Cronin's opinion, that he has not found cause for assuming that the contribution that has been made there is not a proper contribution.

Dr. CRONIN. I would like to point out, under the provisions of the existing Hospital Survey and Construction Act, that in the operation of the program before a hospital is approved to receive Federal funds they must demonstrate to the Federal Government and to the State specifically, through part II of their application, that they are able to meet the financial matching of funds and indicate how they will raise those funds—through bond issues, taxes, mortgages, loans from banks, gifts, campaign funds, and so forth—plus the fact that that specific sponsor must also indicate he has readily available adequate funds to defray the 2 years anticipated deficit of that hospital.

Mr. BUDGE. That does not quite answer the question.

Dr. CRONIN. I know. I am pointing it out for this reason, that these are the financial aspects that a hospital has to go into before we give funds, or before the State gives funds. We make the allotments from the Federal level as of the 1st of July, or as soon after the appropriation becomes available as possible, to the States, and they in turn allot to the specific sponsors.

One other point I think should be presented, that under section 635 of the law, it specifically states that the Federal Government in no way will have anything to do with the operation of the administration of any of the projects receiving aid from the Government under the act.

Mr. BUSBEY. That does not answer the question. The question is this: Assuming, for the sake of the argument, that what this man says about closing hospitals in certain areas of Kansas is correct, we must assume they are being closed for economic reasons of one kind or another. Now would the Department continue to request this committee to appropriate funds to build new hospitals in the same area?

Dr. CRONIN. In the first place, I think the State agency in Kansas would certainly be very aware of that situation and discuss with the Division in the Public Health Service and bring to our attention and foresee any specific problem as you indicate. And if it did exist, it would certainly be within our area of responsibility to bring it to the attention of the Department and make whatever suggestions were indicated for correction, and so forth.

Mr. BUDGE. Just a few minutes ago you said you could not do that, because all you did was to follow the mathematics set down in the legislation.

Dr. CRONIN. That is correct.

Mr. BUDGE. And the State would go ahead and build, whether it was necessary or not?

Dr. CRONIN. We do not say that. What I intended——

Mr. BUDGE. I mean you would give the grant.

Dr. CRONIN. We would O. K. the money, subject to the State making the decision. It is not for the Federal Government to say where a hospital is to be placed in a State. The Federal Government approves the project, but the State sets it up and we review the project under the law.

Mr. BUDGE. Under what you tell us, even though hospitals will likely have to be closed in Kansas, as this man indicates, you would have no discretion in the matter but to go ahead and build hospitals in the same area? That is what you said.

Dr. CRONIN. I think perhaps you misunderstood me. What I intended to say and meant to say and do say is that we give the money to the State. The State makes the determination as to where they are going to place the hospital. Now if a State found that they built a general hospital in this area and it was closed and that community could not support the hospital, in my opinion that would not mean the State should not spend the money that is given to them to take care of the needs in existence in that State in TB, and mental, and chronic, because of the teriffic needs in those areas. And that would control whether we would come to Congress and ask for money under the program.

Mr. BUDGE. As I understood your testimony, you said you had no discretion except to follow the mathematical formula as set down in the law.

Dr. CRONIN. In giving the money to the State.

Mr. BUDGE. Yes, and in approving the particular project.

Dr. CRONIN. Not in approving the project; but, in giving the allotments to the State, we follow the law and have no other alternative.

Mr. BUDGE. In other words, you would have to continue giving money to the State of Kansas, under the formula in the law, even if they could not operate all the hospitals they already had, as the director of this one hospital indicates may be the case?

Dr. CRONIN. If Congress appropriates the money, we are obligated to allot under the law to the States.

Dr. DEARING. I wonder if I could try to clarify this a little bit.

Mr. BUSBEY. I hope somebody can; because I certainly think it needs a lot of clarification.

APPROVAL OF INDIVIDUAL PROJECT

Dr. DEARING. I want to distinguish between allotment, which is simply a figure set up on the books for each State according to the formula which, on the whole, has worked very well, and that is simply setting the figure up on the books which the State may apply for, project by project, insofar as they are projects which meet the criteria that has been set down in the law and the regulations as well. Not one penny is spent because of the allotment. The allotment is simply set up on the books and if the State has no projects which qualify and they could not guarantee 2 years' operation of a single hospital, they could not apply; or, if they applied, they would have to be rejected and no money would be granted unless a qualified project was put forward by the State.

Mr. BUDGE. Do you review the individual projects themselves?

Dr. DEARING. We do indeed, sir.

BASIS FOR DETERMINING IF ALLOCATION OF FUNDS IS PROPER

Mr. BUSBEY. How do you know, under the formulas and the regulations and the program as laid down by the Department, according to the law as passed by Congress, that these hospitals are being run economically, if you do not get any financial statement, or make any check, after they have been completed? What basis do you have that would enable you to make suggestions about revising the law or regulations regarding the way these moneys can be spent by the States under their plans?

Dr. CRONIN. We have no procedure set up to determine whether or not a hospital is economically operated, because under section 635 of the law it is specifically prohibited as far as we are concerned—the getting into the operation of a hospital helped under this law. We have no right to do so by law and have not done so.

Mr. BUSBEY. Do you think it is a proper duty of the Congress to appropriate money to the States where it is found that they have been using their money and the Federal money to build uneconomical projects?

Dr. CRONIN. Mr. Chairman, I would like to nail one thing down; that is, in our opinion, no State has approached the culmination of all of its needs in the hospital-bed area in this country, and I think that is a very factual statement. So that any State with the money that we allot to it, after Congress appropriates it for that purpose, has a right, within their own operation and within this law, to determine where they are going to put this money in terms of building hospitals, and in what kind of categories and where they are geographically.

Mr. BUSBEY. I do not think these State planning boards are infallible; I do not think they are beyond approving plans that should not be approved. I now ask you if you do not think it is the responsibility of your Department to call attention of the States to these situations and, if necessary, ask Congress to make revisions in the law?

Dr. Cronin. If we had statistics as to whether these hospitals did or did not operate economically, which we do not have, and we found hospitals were not operated economically, it would, as a matter

of fact, be within our responsibility, at least in my job to indicate the facts showing that projects were not economical and were closing, and so forth. But we have no such information. In fact the information on the closure of projects indicates that out of 2,200 projects approved, with 1,540 already opened and going into operation, we have only 5 projects which have been closed.

Mr. BUSBEY. Of course the program is comparatively new, yet, it is not an old program.

Dr. CRONIN. That is right; but these projects have been placed in operation; they are functioning; they are serving the need; the people are getting better care than if they did not have a hospital and got care in their homes. We have put in operation over 60,000 beds in hospitals in the last 6 years and only 5 projects out of 1,540 have been closed. And they are closed not because of the reason of uneconomic operation; not a single one of them; they are closed primarily because they are unable to settle certain differences between themselves and the hospital board, and the hospital staff in one case; and, in another instance, because they could not find a physician. And that is only 1 instance out of 1,540. And that was closed last year and it opened in April of this year, because they found a physician who would go to that hospital and operate 10 beds as a combination hospital and public health center.

USE OF HILL-BURTON HOSPITALS FOR PHYSICIAN'S OFFICES, ETC.

Mr. FUSELY. Do you think Congress, when it passed the Hill-Burton law to make up the shortage of hospital beds, contemplated having these hospitals used for all kinds of different things, such as private offices for doctors, dentists, and other purposes?

Dr. CRONIN. Mr. Chairman, in my opinion the inclusion in a project submitted to the Public Health Service for approval of a physician's office, if that physician is on the staff of the hospital and utilizes that office to see patients in the hospital, which would not necessitate his going up to a room or ward, but where they could come in and see him in the office on the first floor, for example, and it was part of that hospital's integrated operation—in my opinion and in the opinion of the General Counsel of the Department, there is no objection whatsoever to having that hospital include a physician's office if it is part of the routine conventional operation of the hospital.

Mr. BUSBEY. Let us say, for instance, that here is a hospital facility that is built, open, operating, and they cannot meet their expenses. Do you think the law contemplated that in order to get some revenue, they would build office facilities for local doctors?

Dr. CRONIN. We would not approve such a project, sir, for the building of offices for local doctors in the local facility, unless the space that was occupied for that purpose, doctors' offices, could be regarded as part of a conventional hospital. We do not participate in building doctors' offices.

Mr. BUSBEY. I have a specific instance in mind. There was no provision in the original plans for having a doctor's office or a dentist's office put in the building. Now they have found they are short of funds, after they have built the hospital. They find out that they have too few patients, so, in order to help make up the deficit they

have provided doctors' offices in the building. We have no control over that, have we?

Dr. CRONIN. Did they convert patients' rooms into doctors' offices?

Mr. BUSBEY. Not in this case, no.

Dr. CRONIN. Under the law the provision is that the hospital must be operated for a period of 20 years by an eligible party and employed for the purpose intended in the Federal grant. If we knew of such a case we would certainly question that case.

Mr. BUSBEY. Yes, but you cannot get the money back. After you have given the funds to the State, and the planning board submits the program and you O. K. it, you have no control over the facilities whatever after they are completed and the money is paid out.

Dr. CRONIN. Under the law we have no control over the facility.

Mr. BUSBEY. Regardless of what changes they make?

Dr. CRONIN. As long as they continue operating it for a period of 20 years by an eligible party, that is, by a nonprofit or a public agency, and for the purpose intended. The law does not permit us to do anything more than that.

Now, if, for example, there was fraud which could be shown, after legitimate complaint——

Mr. BUSBEY. I am not talking about fraud. Let us not bring in something that I am not talking about now. I do not think that there is any fraud involved here at all. It is a matter of procedures under which funds are being used to build facilities which I am thoroughly convinced were not contemplated under the law.

Now, to be more specific I am referring to the Louisa County Memorial Hospital, at Louisa, Va. That was originally built as a county maternity center. I will say that the facilities in the center for handling maternity cases lack for nothing.

I doubt if there is a hospital in the United States that has more modern or better equipment than this maternity center at Louisa, Va., but, unfortunately, although they did lease a part of the quarters out to the Louisa County Health Department, they still were not able to make a go of the hospital.

So they made provisions in the hospital for 3 doctors, Dr. Henry S. Daniel, who has been, according to my information, practicing in the community for about 35 years, also for an office for his son, Dr. Murphy H. Daniel, and also for his daughter-in-law, Dr. Evelyn P. Daniel. They are occupying offices in the basement of the south wing.

Now, in addition to that, they made an office for Dr. John W. Barnard, and also an office for Charles K. Perkins, a dentist. This is as of August 17 of last year, when I visited this hospital.

The hospital was originally built for 23 beds. It was opened June 24, 1952, but there were not very many maternity cases. The doctors were using some of these beds, and I say this from personal observation as well as from discussions with different people, as more or less of a convalescent place for elderly people.

They were not satisfied with building these offices in the building for the use of the doctors and the dentist, but they even rented out an office for the headquarters of the county selective service board.

Now, somewhere along the line it seems to me that there was very poor planning and very poor checking on the planning.

They had started out to raise their matching funds locally with local committees, and as it so often happens they met with difficulties. Having failed, they hired some fund-raising people out of New York to come down there at large expense to raise enough money to get their matching funds.

I just wonder, Doctor, if this is what the Hill-Burton law was aimed to do.

Dr. CRONIN. Well, Mr. Chairman, if everything you have said there is factual, and I have no reason to suspect it is not——

Mr. BUSBEY. Well, I will stand on it as a personal inspection of my own.

Dr. CRONIN. I have not had the privilege of visiting Louisa, Va.

All I know about Louisa, Va., is that it is one of 2,200 projects that we approved, and that it is a combination hospital and public-health center. In other words, it was aimed to carry out the job of health maintenance in the community together with corrective medicine and preventive medicine and that estimated total cost was $292,310, of which the estimated Federal share was $131,565, and that it is a 23-bed facility with a public-health center in connection with it in the same building.

I would be glad, sir, to submit for the record, if it is your wish, a complete report on that project as we have it in our files.

(The matter referred to is as follows:)

LOUISA COUNTY MEMORIAL HOSPITAL, VIRGINIA PROJECT NO. 19

The Louisa County Memorial Hospital project as approved by the Public Health Service under the Hospital Survey and Construction Act was described as a medical service center providing space for conducting local public-health clinics and also providing 22 hospital beds, a labor room, delivery room, emergency room, and the necessary clinical and central service facilities. The total cost of the project as approved for Federal participation was $268,500, the Federal share of which was $131,565 (49 percent of the cost).

Approximately 5 months after construction started the owners worked out an agreement with the contractor to "finish off" space in the basement to provide office space for medical and dental practitioners. The additional cost for this work was $26,161 which funds the owner was to provide without Federal assistance. The project as finally audited cost $292,309.72 or $23,809.72 more than the $268,500 as approved for Federal participation. Federal participation, however, was limited to 49 percent of the initial total cost approved, $268,500 or $131,565.

In view of the information reported by the chairman of the subcommittee relative to the manner in which this project is currently being utilized, the Public Health Service proposes to make an investigation in order to determine if the current usage conforms to the provisions of the Hospital Survey and Construction Act.

Mr. BUSBEY. I might also add at this point that when I was there the monthly income from the county health department was $125 a month; from the 3 Daniel doctors, $177 a month; from Dr. Barnard, $75 a month; from Dr. Perkins, $85 a month; and from the selective service board, $35 a month, making a total of $497. Their profit and loss statement for the calendar year 1953 as of July 31, showed revenues of $36,251.29, less expenses of $33,862.82, which showed a profit of $2,388.47. But, they are going to have a hard time getting by unless they do get this additional income.

I raise the question as to whether the State planning board used very good judgment in approving a plan like that for their own funds, as well as for Federal funds. I just wonder if we should be so lax with the taxpayers' money. After we have allotted the money and

it is put into these projects we have no jurisdiction over it whatsoever. I raise the question as to whether we should have recommendations for corrective legislation to take care of these situations.

Mr. LARMON. Mr. Chairman, you have a deterrent there and you have brought it out partially, at least. You have indicated that private funds and State funds or a combination of them plus Federal funds were involved, and if in their opinion the judgment has not been extraordinarily good the operation loss will have to be borne by the State and by the private group. So, you have that as a definite deterrent.

Mr. BUSBEY. Yes, but should there be a continuation of this allowance of putting doctors' offices in these hospitals like that?

Mr. LARMON. I could only speak from experience in one local situation, one where Hill-Burton Act funds were used, and in that particular instance the proximity of the doctors to the operating rooms and to the patients was exceedingly important to make it an effective hospital in treating patients.

Dr. CRONIN. That is particularly true, Mr. Chairman, in rural communities where you have 1 or 2 physicians, or even 3 physicians on the staff of a hospital, who are practicing in the community, and their accessibility and availability to the patient who is sick is a very important thing to the patient, and anything that can be done to facilitate that is important.

Mr. BUSBEY. I might say that previously the offices of these doctors which are now in the hospital, were not over 2 blocks from the hospital, and certainly not over 3 blocks, so they were pretty close to the hospital facilities.

Dr. CRONIN. Was all of this remodeling done also with Federal funds?

Mr. BUSBEY. No, I do not think so, but they certainly had to remodel a certain portion of the building that was constructed with Federal funds in order to make these facilities available for these doctors and the dentist and the selective service board. They had to get a mortgage from the local bank in order to carry this program out. I just wonder where do we stop on this Hill-Burton law with respect to these facilities.

I was looking at the March 31, 1954, Hospital Facilities Division report which I had not seen until now. From this report it indicates that the Louisa County Memorial Hospital is under construction.

I was informed, and I think correctly when I was there that the facility opened—well, it was dedicated on May 15, 1952, and it was certainly in operation and had been in operation for some time before I was there. Even the remodeling had been taken care of, so that must be an error.

Dr. CRONIN. I would like to point out that in these statistical reports you have in your hand, the status of each project is based on reports we receive from the States about the projects in their particular State.

We do have instances, and a number of them, where, because of the need for hospital facilities in the area, these projects will be, as far as the public is concerned, opened and beds equipped, whereas officially it is not closed out or finished or anything like it. That happens time and time again.

If this is in error we would be very glad to change it, and we thank you for the information.

Mr. BUSBEY. Well, it is very hard for you, gathering together a tremendous amount of statistics and relying on other people and on reports sent in to you, to get everything exactly correct.

Dr. CRONIN. That is right, sir.

DIFFERENCE IN ESTIMATES OF ADDITIONAL BEDS NEEDED

Mr. BUSBEY. We were discussing the difference between your two statements, with regard to unmet bed needs. In one statement you said that 500,000 additional beds were needed throughout the country, and in the other it is estimated at from 740,000 to 848,000.

Did I ask for a breakdown, for the record, of the number estimated to be needed?

Mr. KELLY. Yes, sir

Mr. BUSBEY. We really ought to have two tables, I think, to show how the different figures were arrived at.

Dr. CRONIN. Mr. Chairman, you did ask for that group submitted for the record, tables supporting the total of 812,765 beds.

Mr. BUSBEY. Less 119,000, I think.

Mr. CRONIN. The other figure you referred to in my opening statement is based on the figure President Eisenhower used in his health message. He specifically stated that it is conservatively estimated that there are 500,000 additional beds needed in the country.

Mr. BUSBEY. According to your general statement, you quoted him as saying, "A minimum of 500,000 additional hospital beds."

Dr. CRONIN. I think that minimum would constitute the statistic we have conservatively estimated. Basically I cannot see much difference between the 500,000 and the 800,000 beds needed in terms of what can be done with the money available, or which is likely to become available, in the time the law is in existence.

Mr. BUSBEY. Only there is a wide discrepancy in the figures used for the total number of beds needed. I was just wondering how this figure of 500,000 was arrived at by the President. Did he call on the Department for any help in arriving at that estimate?

Dr. CRONIN. I do not know, sir. All I know is that the figures we have are specific figures. His discretion in using them I do not know.

Mr. BUSBEY. I cannot conceive of his using this figure, and you using the figure in your opening statement, without consulting the experts in your Division. Would you check to see if anybody was consulted before he used this figure of 500,000?

Dr. CRONIN. I shall be glad to do so.

Mr. BUSBEY. I just cannot conceive that he would do that without consulting you folks.

(The matter above referred to is as follows:)

The figures on the additional hospital beds needed, as reported by the States in their State hospital construction plans submitted annually, at the time the President's health message was in preparation was 812,765. Since there are, however, 119,042 beds in operation for civilians in the Federal facilities of the Veterans' Administration, Indian Service, and Public Health Service, there is a remaining need for 693,723 additional hospital beds. The Public Health Service, in submitting a figure for use in the President's health message, in order to be on the conservative side recommended that the President in his message report the figure for additional hospital beds needed as "over 500,000."

Mr. BUSBEY. Now, on page 8–3 of your justifications, for "Salaries and expenses," you say:

The estimated deficiency of this Nation's hospital bed need is 850,000.

Now we get another figure that is more than any of the various figures in your statement and the President's message.

Dr. CRONIN. Mr. Chairman, that 850,000 figure is a figure which was prepared back in September or October of 1953 at the time this material was prepared for printing purposes for submission to the Bureau of the Budget and to Congress. Our totals were restated here as of January 1, 1954, and the correction from the figure of 850,000 down to 812,000 is a specific and accurate correction. I think it is just in the time elapsing between the preparation of this material and the final information we got at the time.

Mr. BUSBEY. That figure of 812,000 was as of what date?

Dr. CRONIN. January 1, 1954.

Mr. BUSBEY. I notice in the hearings, an answer to a request of Mr. Fogarty on March 26, that Secretary Hobby placed a table in the record showing that 812,765 additional beds were needed, so I assume that must have been the latest figure you compiled.

Dr. CRONIN. That is the figure we show here as of January 1, 1954, exactly.

BASIS OF ARRIVING AT LATEST ESTIMATE

Mr. BUSBEY. That is carried out to the last digit, 812,765. It is just like a man taking an inventory in his store. If he uses round figures of, say, $65,000, it is an indication to the auditor that he did not take a very good inventory, but if he used the figure of $6,465.12, he must have been meticulous in his taking of the inventory and knew whereof he spoke.

So, with that estimate being to the last digit, we would be interested if you would tell us in detail just how that particular figure was arrived at?

Dr. CRONIN. I shall be glad to, Mr. Chairman.

Mr. BUSBEY. Was that arrived at entirely from the figures you received from the 48 States?

Dr. CRONIN. That is arrived at in exactly that way. We received a figure from each of the 48 States.

Mr. BUSBEY. That is the figure that will show up in the table you are going to put in the record?

Dr. CRONIN. Exactly. That is specifically the way it was compiled, and it represents what each State tells us in each category of the bed need that they have, utilizing the formula under the law, and it is the same for all of the States.

USE OF AVERAGE PERCENTAGE OF OCCUPANCY IN ESTIMATING NEEDS

Mr. BUSBEY. Do you know if the States in compiling their figures use your average percentage of occupancy in their formula?

Dr. CRONIN. There is no place for the percentage of occupancy to be used in figuring the bed needs. It is not a part of the formula criteria.

Mr. BUSBEY. Is the formula 4.5 for beds per 1,000 population?

Dr. CRONIN. For general hospital beds the formula is 4.5 to 5.5.

Mr. BUSBEY. All of the States use that formula?

Dr. CRONIN. Yes, sir.

Mr. BUSBEY. Regardless of whether they are industrial States, or rural, farming States?

BASE AREA

Dr. CRONIN. Yes, sir, that is right, but they do not have the 4.5 to 5.5 formula for general hospital beds. Depending on the density of population for all of the areas of the States the regulations and the manual and all predicated on the law indicate that in the so-called base area. The Hill-Burton program is predicated on the provision of hospital service across the State with a base area being defined as an area where a hospital would be located with 200,000 population or a medical university teaching center where you would have an agglomerate group of all medical facilities and specialists in one place.

That is known as a base area.

From that area, going out in minimum amounts of special services will be your so-called district area, and then on out to the community area, and then on out to the small community, the thinking being that in the base area 4.5 would be the figure which would represent the minimum.

For example, New York City certainly would need more than 4.5 beds per thousand people for general hospitals, whereas away upstate New York, at a place like Gouverneur, up along the St. Lawrence River, they will not need 4.5 beds per thousand people. They need about 2.5 beds.

Mr. BUSBEY. What formula do they use in New York City, and around New York City?

Dr. CRONIN. Two and a half per thousand in the rural areas, 4 in the district areas, and 4.5 plus in the base areas.

POOL BEDS

We have also technically what are known as pool beds.

A State under the Hill-Burton Act cannot build in excess of 4½ beds per thousand, except for maintaining pools like that where they go to 5½ beds because of the density of population. We cannot build more than 4½ beds with Hill-Burton funds per thousand people in the total State.

When you come to a place like Gouverneur, N. Y., which is in upstate New York, in very rural country, they do not need 4½ beds per thousand people; 2.5 is what they need up there. So, that number is used for that area by the State planning agencies. That would leave 2 beds left over. Those then become the nucleus of what we call pool beds. As your need for these rural areas in any one State is 2.5 beds per thousand people, these 2 beds left over go into the pool which are then available for placing in the base areas, such as New York City.

DIFFERENCE IN NEED BETWEEN URBAN, INTERMEDIATE, AND RURAL

The New York City current situation is over 6 beds per thousand, and they need more than 6 beds per thousand because of their density of population. Under the Hill-Burton Act, then, this pool can be

shifted into New York City to raise its bed ratio from 4.5 up to maybe 6 or 6.5 per thousand, but nevertheless, 4.5 still holds for the State as a whole.

Mr. BUSBEY. For purposes of this formula, then, you have an area in between urban and rural?

Dr. CRONIN. An intermediate area.

Mr. BUSBEY. That is the area between the urban and the rural?

Dr. CRONIN. That is right.

Mr. BUSBEY. Where does that start, going out from the urban areas?

Dr. CRONIN. It will vary with the State planning agency, depending on the characteristics of their population groups.

Under the regulations, and I should read that specifically, in "Subpart A—Definitions, section 53.1 (c) intermediate area" it states:

> Any area so designated by the State agency which: (1) Has a total population of at least 25,000 and (2) contains, or will contain on completion of the hospital construction program under the State plan, at least 1 general hospital which has a complement of 100 or more beds and which would be suitable for use as a district hospital in a coordinated hospital system within the State—

and then we define the base areas similar to the intermediate area and the rural area.

Mr. BUSBEY. For example, I am going to draw a circle. This [indicating] represents the urban area, and let us say that represents the city limits of the city of Philadelphia.

Now, for practical purposes the area adjacent to the city limits of Philadelphia is just as much a part of Philadelphia as that part which is within the city limits, but we have a town out here of 25,000 population. Let us say it is town A. They have a very fine hospital just across the line from the city limits, but it is within this town of 25,000 people.

Now, 90 percent of the patients in this hospital in town A are people who actually live in Philadelphia. Would that stop another hospital from participating in Hill-Burton funds in this adjacent community?

Dr. CRONIN. Mr. Chairman, I think we should go back to the basic preparation of the State plan because, under the law, the State was required to survey its resources and did so, and separate Federal money was appropriated and sent to the States on a matching basis for that purpose.

The State plan was arrived at by each State dividing itself up into geographical units, each area being defined as a hospital service area. They may be a county, they may be two counties, or they may be a half county. Usually there is a trade center there in that geographical unit, called a hospital service area. The lines of demarcation between one hospital service area from another hospital service area are lines that have been based on an arbitrary line, so they represent a hospital service area.

Now, the basis of this whole situation is the kind of service available to the people, not the number of beds built, and we know that in the total integrated program utilizing the base area, the intermediate area, and the rural area that we are thinking not in terms of beds per se because, after all, beds are but symbols of service. We are thinking in terms of services.

It would be wrong in a rural area to help a small hospital develop the equipment and operating facilities for a brain-tumor operation because the chances are that they would never have a neurological surgeon in that area capable of doing that kind of an operation. That kind of facility and that kind of service properly belongs at the base area. I would like at this point to read the definition of a base area. The specific answer to your question, Mr. Chairman, is that this town of 25,000 would be incorporated in the base area of Philadelphia. With a 25,000 population town the hospital there, however, may be of such a size and perform service in such a way that that hospital would not be competent to do a brain-tumor operation.

Now, an area is defined as:

A logical hospital service area, taking into account such factors as population distribution, natural geographic boundaries, transportation, and trade patterns, all parts of which are reasonably accessible to existing or proposed hospital facilities and which has been designated by the State agency as a base, intermediate, or rural area. Nothing in the regulations in this part shall preclude the formation of an interstate area with the mutual agreement of the States concerned.

Section (b):

Base area: Any area which is so designated by the State agency and has the following characteristics: (1) Irrespective of the population of the area, it shall contain a teaching hospital of a medical school; this hospital must be suitable for use as a base hospital in a coordinated hospital system within the State; or (2) the area has a total population of at least 100,000 and contains or will contain on completion of the hospital construction program under the State plan at least 1 general hospital which has a complement of 200 or more beds for general use. This hospital must furnish internships and residencies in two or more specialties and must be suitable for use as a base hospital in a coordinated hospital system within the State.

I previously read the definition of an intermediate area, but I would like to read the definition of a rural area. This is section (d):

Rural area: Any area so designated by the State agency which constitutes a unit, no part of which has been included in a base or intermediate area.

(e) Coordinated hospital system. An interrelated network of general hospitals throughout a State in which one or more base hospitals provide district hospitals and the latter in turn provide rural and other small hospitals with such services relative to diagnosis, treatment, medical research, and teaching as cannot be provided by the smaller hospitals individually.

In essence, the base hospital is where you do therapy, and you do teaching of interns, residence, dieticians, technical aides in hospitals. You do teaching, research, and therapy.

An intermediate area hospital is where you will do basically therapy and teaching at a much less degree or level that at the university center, and you may nor may not do, and probably will not do any research in that area hospital.

In the rural area you will do no research, and you will do no teaching, but you will do therapy.

In general that is the coordinated hospital system, and it is the thread running through the Hill-Burton program.

OCCUPANCY REPORTS

Mr. BUSBEY. Do the various State hospital planning boards make an occupancy report to you?

Dr. CRONIN. They do not, sir, unless we ask for it.

We have asked for it at the specific request of specific individuals in the last couple of years.

Mr. Chairman, I would like to point out also in regard to your question that this program is now going into its seventh year.

As times change, and they do, and attitudes change toward certain Federal activities, there are times when any request of the Federal Government officials made to specific areas of the country are not acceptable one way or the other.

However, requests by us for occupany reports or figures in some areas today are accepted and they are gratuitously given.

AREAS OF GREATEST NEED

Mr. BUSBEY. I notice at the bottom of page 4 of your statement you say:

> In Mississippi and Alabama, about 8 additional beds per 1,000 population are needed. Regionally, the greatest unmet need is in the Southern States, although substantial progress has been made there in recent years.

Were there any other figures arrived at for the Southern States besides the States of Mississippi and Alabama?

Dr. CRONIN. Mr. Chairman, all of those figures are contained in that chart or the statistics which you asked us to put into the record.

We have it broken down into regions, New England, the Middle West, the Southeast, the Southwest, the Central States, the Northwest, the Far West, and the Territories.

Mr. BUSBEY. I see.

In the last paragraph of your statement you say:

> The function of the Federal Government is to assist and stimulate State action, within the limits of the Federal budget.

The measure of your success would seem to be whether or not the States are increasing their percentage of participation in the program.

PERCENTAGE OF FEDERAL AND NONFEDERAL EXPENDITURES

What is the percentage of Federal funds spent on the program, and the percentage of State and other non-Federal funds spent on it? Can you put a table in the record showing that for the years 1952, 1953, and 1954?

Dr. CRONIN. We would be glad to do that, Mr. Chairman. It varies, as you know, from State to State.

Mr. BUSBEY. Yes.

(The requested information follows:)

Fiscal year	Division of total cost of new projects approved in period	
	Federal funds	State and local funds
	Percent	*Percent*
1952	33.6	66.4
1953	29.2	70.9
1954 (9 months)	28.6	71.4

Dr. CRONIN. This chart of the aggregate you might be interested in observing.

The total amount of Federal funds spent, in round figures, is $600 million. The State and local funds amounted to $1,169,000,000 which matched the $600 million of Federal funds. So, the ratio is almost 1 to 2.

Mr. BUSBEY. I think this would be a good place to break off and recess until 2 o'clock.

AFTERNOON SESSION

Mr. BUSBEY. The committee will come to order.

UNLIQUIDATED OBLIGATIONS

Dr. Cronin, would you submit for the record, please, the amount of unliquidated obligations at the most recent date by fiscal year?

Dr. CRONIN. We will be glad to do that, Mr. Chairman.

(The requested information follows:)

Table of unliquidated obligations by fiscal years as of Mar. 31, 1954

Fiscal year	Obligations	Liquidations	Unliquidated balance
1948	$74,686,976	$74,124,601	$562,375
1949	74,901,451	73,468,242	1,433,209
1950	149,871,151	146,205,606	3,665,545
1951	84,793,395	79,365,973	5,427,422
1952	82,281,721	67,803,812	14,477,909
1953	62,707,204	29,047,867	33,659,337
1954	28,751,261	5,660,946	23,090,315
Total	557,993,159	475,677,047	82,316,112

SPLIT PROJECT POLICY

Mr. BUSBEY. Doctor, would you give the committee, please, the results of the redefinition of split projects and especially the effects such redefinition may have had upon Federal funds.

Dr. CRONIN. Mr. Chairman, as a result of the admonition from Congress last year, the split project policy was revised and currently is as follows:

Utilizing the previous year, 1954—which is the previous year now—appropriation allotment to each State, the State agencies may not project into future fiscal years on split projects amounts in excess of those derived by application of the following formulas:

(1) First succeeding fiscal year (which currently would be 1955): Two-thirds of the current fiscal year allotment to the State or $200,000, whichever is greater.

(2) Second succeeding fiscal year (which in this instance would be fiscal year 1956): One-third of the current fiscal year allotment to the State or $200,000, whichever is greater.

(3) A project may not be split beyond the second succeeding fiscal year or beyond fiscal year 1957, whichever is earlier.

(4) There are no restrictions on the commitment to split projects of funds currently available to a State.

Any project construction schedule which includes one or more split projects must be forwarded to the Washington office for review prior to approval. The schedule must show not only the commitment

of available funds but also the amounts tentatively scheduled out of future fiscal years.

In order to be approvable, an application for a split project must show, in addition to the requirements as specified in part 24–5 of the Health Grants Manual, the following:

1. The applicant must show financial resources equal to the applicant's share of the total cost of constructing and equipping the entire facility. In addition, the applicant must demonstrate to the satisfaction of the Surgeon General the financial means by which the project will be completed in the event of failure of, or reduction in, future Federal appropriations. (For example: If the applicant's share of the cost is $500,000 and the Federal share is $500,000 but only $400,000 of the latter is available at the time the application is submitted for approval, the project may be approved as a split project only if the applicant can show that he has $500,000 available to pay his share and, also, that he has the means of providing an additional $100,000 if necessary. A statement from a bank or other lending agency, discounted pledges in the proper amount, a statement from the proper authority in the case of a publicly sponsored project that the additional funds will be made available, and the like, may be accepted as evidence that the applicant is able to provide the additional funds.) If the applicant cannot demonstrate such financial ability, the scope of the project must be reduced to the point where it can be completed with the funds available under which circumstances it becomes a "fractional" rather than a "split" project.

2. At the time the part 4 of the application for a split project is approved, the applicant must sign the following certification which must be made a part of the application documents:

> The applicant understands that approval of this application is a commitment on the part of the Surgeon General for that portion of the Federal funds available to the State for obligation during the fiscal year ending June 30, 1954 only; that the Federal Government is not committed to appropriate funds in future fiscal years for this project; and that the eligibility of this project to a share of such Federal funds as may be appropriated in the future is subject to the priority rights of other applicants in the State.

That was the revised policy on split projects which was issued by the Division of Hospital Facilities on November 6, 1953. The time is short to see the final results of such new policy, but in general the policy is aimed at the reduction of split projects except in those instances where the sponsors in general have the ability or can find the ability to come up with their own money in lieu of Federal funds if they are not forthcoming. It has a very definite deterring effect on split projects.

Mr. BUSBEY. I take it you think that would overcome a situation such as we got ourselves into in Arkansas at St. Vincent's Hospital where they were taking up the funds for 2 or 3 years and local communities that had obligated themselves even for a bond issue were not able to participate in the program. Is that correct?

Dr. CRONIN. This new policy would have a definite tendency to act as a deterring agent for that type of planning.

The particular split project you referred to—it was in Hope, Ark.—I just had a telephone call before I came up here from the Dallas region. It is on our Federal desk in Dallas and is to be approved in

the final form. The judge in that particular county has made a statement that the funds will be forthcoming in the event Federal funds are not forthcoming.

CUTOFF DATE

Mr. BUSBEY. What about a cutoff date? You establish a cutoff date, do you not, on which a particular project is considered closed out and an audit is made?

Dr. CRONIN. Yes. Again through the help of information that was called to our attention through the hearings last year, which was most helpful, we have established a policy that cutoff dates will be established on projects instead of permitting the projects to set their own cutoff date. We now have a policy that requires the sponsor and the State agency, in cooperative endeavor, to establish a date which will be the date recognized as the date that the project is closed out.

Mr. BUSBEY. What will be the fiscal effect of the establishment of a cutoff date?

Dr. CRONIN. In essence it will be this, in my opinion, that we will know the amount of funds which that project is going to utilize within the amount that it is estimated will be utilized. It will give a clear conception of the actual funds to be utilized by that project, because we deal in estimates all the way and final figures are only available after a project has been finally audited and officially closed. Those balances, I might say, would be available to the State for utilization in other projects, although they will not be large in amount.

POSSIBILITY OF BUILDING BEYOND NEEDS

Mr. BUSBEY. On page 5 of the report submitted to the committee by our task force, they had this to say:

> The second publication referred to above indicated the difficulty in establishing formulas providing for bed needs such as have been used in the administration of the Hill-Burton program. One of the statements reads:
> "The scale of present construction has led some to question whether the country is not overbuilding its hospital plant."

Then another publication also includes the following statement:

> Under some circumstances a population may demand and receive more hospital service than is needed, in that people, particularly if insured against hospital costs, may receive care for conditions which could be diagnosed just as effectively in an outpatient department or the physician's office or patient's home.

What has been done to conduct further research in this field of how many general hospital beds are needed?

Dr. CRONIN. I do not know what you refer to there. I am guessing because I have not been submitted the report. My guess is you have reference to an article, or a booklet, which was prepared in the Division of Medical and Hospital Resources by Dr. Louis Reed.

Mr. BUSBEY. That is the one, How Many General Hospital Beds Are Needed.

Dr. CRONIN. That is the publication. I am familiar with it because I read it. Those studies were conducted under the Division of Hospital and Medical Resources, and when that Division, through appropriation shortages, had to be dropped the studies that they

carried on cannot be carried on with our present staff. Some similar studies pertaining to States as entities are carried on by certain States. We have some material, particularly from California. California prepared a statement, "Comments on Validity of 4.5 Acute General Hospital Beds per 1,000 Population as a Planning Objective." This was presented at a conference called by the American Hospital Association. They called four conferences last year, at Washington, New Orleans, Salt Lake City, and Chicago, to which they invited the State hospital survey and program directors from each State, the State hospital association president and executive secretary, members of the house of delegates of the American Hospital Association who had an interest in those geographical areas, and also Public Health regional program directors, myself, and another member of our headquarters staff, the latter group, Federal officials, being there only as informational and resource people to be asked questions about the program.

It was at the Salt Lake City meeting that this particular California presentation was made. I might say in all those meetings the question of the adequacy of the formula in the Hill-Burton Act was discussed and in the final analysis when the reports were submitted to the house of delegates of the American Hospital Association, they did not recommend a change in the formula.

I would like to read the California statement:

Analysis of hospital needs in California indicates 4.5 beds constitutes a reasonably accurate planning objective, particularly since amendment of Federal Regulations in October 1952 gives the State authority to establish a lower planning ratio if analysis of hospital needs in the State indicate this is desirable.

Prior to this amendment of Federal Regulations it was necessary to establish a higher planning objective than 4.5 beds, because of the mechanical process required in estimating needs. This mechanical process established a need objective for California of 4.8 beds per thousand in the fiscal year 1952–53, and would have produced an estimated need of 4.5 for 1953–54 because when certain areas had beds in excess of 4.5, such overage in these areas was added to the average of 4.5 for the remaining areas of the State.

I would like to interpolate they are talking about general hospital beds in the 4.5.

Computing bed requirements on this basis would establish a bed need for California of 51,025 beds for the fiscal year beginning July 1, 1953. Under authority of the amended Federal Regulations of October 1952 it is proposed to prepare the California State plan for the fiscal year beginning July 1, 1953, with a need objective for the State of 46,566 beds or 4.4 beds per thousand.

The bed need estimates identified as being based on utilization factors are derived principally from an analysis of patient days of hospital service throughout the State. From the tabulation of actual patient days of service it is apparent that a wide range in usage of hospital facilities exists in various parts of the State. It is recognized that this tabulation provides insufficient information to permit direct mathematical computation of bed-need estimates for each area; however, our opinion is that study of this material permits more intelligent estimates than can be made by the arbitrary use of ratios such as 2.5 beds for rural areas, 4.0 beds for intermediate areas, and 4.5 beds for base areas.

We note in a number of State plans that some use is made of the bed-death ratio in arriving at estimates of general hospital bed needs. While this method is discussed in some detail in the report of the Commission on Hospital Care, our analysis indicates the bed-death ratio should not be used as a primary yardstick in measuring need for hospital beds. A table was prepared indicating bed-need estimates which would result in California if the bed-death ratio were used. It is of interest to note that this basis of estimating bed need would establish a figure of approximately 50,000 beds for California.

Mr. BUSBEY. Doctor, you made mention of the fact you had not seen the report. I might say that neither had any of the members of the committee until recently, but it is my intention to suggest to the committee that these reports not only be made available to the Department but that the members of the task force who wrote the reports be called in so they can sit down with the various constituents and discuss their thinking along each line to see what constructive thoughts might come out in a conference on this matter. I think that would be one of the most valuable uses that could be made of a report of this kind, not only to give the bureau or agency or the Department the benefit of the report, but also the benefit of consultation with the people who wrote the report so that if they missed something or got the wrong interpretation of something you would have the opportunity to correct their thinking, and at the same time it may be that something constructive might be passed on to the various agencies that will be helpful in the future. I just bring that up inasmuch as you mentioned the fact that you had not seen the report.

Dr. CRONIN. I think that would be most helpful, Mr. Chairman. Of course we have had close relationships with the folk who prepared the report.

Mr. BUSBEY. I think we are all working toward a common objective and I think the information of the individuals of the task force and the report should be made use of not only by the committee but by the Department.

EFFECT OF NEW DRUGS ON REDUCING REQUIRED HOSPITALIZATION

Another quote in that publication is this:

> Some of the new drugs introduced during the past decade have greatly reduced the number of cases of certain illnesses that require hospitalization and the length of stay of cases hospitalized.

Is there any estimate of the reduction in length of stay as a result of the new drugs? What effect does that have on the estimates of beds required?

Dr. CRONIN. I should think it would have a very small effect on the estimates of beds required because there is such a shortage of beds that the beds made available by reason of patients getting out quicker have not reduced the number of beds needed.

Mr. BUSBEY. Have there been statistics compiled on the reduction in length of stay due to the introduction of these new drugs?

Dr. CRONIN. There have been some studies, not national studies, on the effect of the advent of new drugs on the length of hospital stay.

Mr. BUSBEY. What knowledge do you have of those studies?

Dr. CRONIN. There are diversified studies in various places. They all indicate that in certain kinds of diseases, primarily the so-called acute infectious diseases—not heart and not cancer—they do have an impact on the length of time that persons suffering from those diseases stay in the hospital. That time has been reduced, thereby making the beds available for people who need them so urgently; and, those beds are used for those other people such as heart and cancer patients; but that is not a factor in reducing the number of beds we need.

LOUISVILLE, KY., PROJECT

Mr. BUSBEY. I am going to quote from the task force report starting at the bottom of page 5 under a heading entitled "An Example of Federal Funds Piled on Federal Funds":

> Kentucky project No. 67 was approved in 1952 for $374,000 of Federal funds for an alteration costing $573,000. This is a municipal hospital which formerly was the Public Health Service Marine Hospital in Louisville, Ky., built in 1856. The cost to the Government of the Marine Hospital was $435,500. It was sold to the city in 1948 for one-half of the appraised fair market value of the land (8¼ acres) for $25,000. Attention is directed to the fact that the city of Louisville was able to obtain the hospital on such terms and subsequently received $374,000 of Hill-Burton funds for a remodeling, even though as recently as 1934 the Public Health Service expended $304,000 in extensions and remodeling.

Why were Hill-Burton funds used for remodeling instead of allowing the municipality to remodel this hospital with their own funds?

Dr. CRONIN. I happen to know something about that because at one time I was stationed about 100 miles away and visited that project when it was operated by the Public Health Service. What I know about that project is this:

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An ugly, green frame, gingerbreaded relic of a former residential elegance within 2 years will be razed to be replaced with a new 100-bed psychiatric institute—Norways Foundation Hospital.

Mr. BUSBEY. Doctor, you made mention of the fact you had not seen the report. I might say that neither had any of the members of the committee until recently, but it is my intention to suggest to the committee that these reports not only be made available to the Department but that the members of the task force who wrote the reports be called in so they can sit down with the various constituents and discuss their thinking along each line to see what constructive thoughts might come out in a conference on this matter. I think that would be one of the most valuable uses that could be made of a report of this kind, not only to give the bureau or agency or the Department the benefit of the report, but also the benefit of consultation with the people who wrote the report so that if they missed something or got the wrong interpretation of something you would have the opportunity to correct their thinking, and at the same time it may be that something constructive might be passed on to the various agencies that will be helpful in the future. I just bring that up inasmuch as you mentioned the fact that you had not seen the report.

Dr. CRONIN. I think that would be most helpful, Mr. Chairman. Of course we have had close relationships with the folk who prepared the report.

Mr. BUSBEY. I think we are all working toward a common objective and I think the information of the individuals of the task force and the report should be made use of not only by the committee but by the Department.

EFFECT OF NEW DRUGS ON REDUCING REQUIRED HOSPITALIZATION

Another quote in that publication is this:

> Some of the new drugs introduced during the past decade have greatly reduced the number of cases of certain illnesses that require hospitalization and the length of stay of cases hospitalized.

Is there any estimate of the reduction in length of stay as a result of the new drugs? What effect does that have on the estimates of beds required?

Dr. CRONIN. I should think it would have a very small effect on the estimates of beds required because there is such a shortage of beds that the beds made available by reason of patients getting out quicker have not reduced the number of beds needed.

Mr. BUSBEY. Have there been statistics compiled on the reduction in length of stay due to the introduction of these new drugs?

Dr. CRONIN. There have been some studies, not national studies, on the effect of the advent of new drugs on the length of hospital stay.

Mr. BUSBEY. What knowledge do you have of those studies?

Dr. CRONIN. There are diversified studies in various places. They all indicate that in certain kinds of diseases, primarily the so-called acute infectious diseases—not heart and not cancer—they do have an impact on the length of time that persons suffering from those diseases stay in the hospital. That time has been reduced, thereby making the beds available for people who need them so urgently; and, those beds are used for those other people such as heart and cancer patients; but that is not a factor in reducing the number of beds we need.

LOUISVILLE, KY., PROJECT

Mr. BUSBEY. I am going to quote from the task force report starting at the bottom of page 5 under a heading entitled "An Example of Federal Funds Piled on Federal Funds":

> Kentucky project No. 67 was approved in 1952 for $374,000 of Federal funds for an alteration costing $573,000. This is a municipal hospital which formerly was the Public Health Service Marine Hospital in Louisville, Ky., built in 1856. The cost to the Government of the Marine Hospital was $435,500. It was sold to the city in 1948 for one-half of the appraised fair market value of the land (8¼ acres) for $25,000. Attention is directed to the fact that the city of Louisville was able to obtain the hospital on such terms and subsequently received $374,000 of Hill-Burton funds for a remodeling, even though as recently as 1934 the Public Health Service expended $304,000 in extensions and remodeling.

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All to the tune of $12 million, freely given and to be freely spent in Indianapolis. All subscribed, willingly and heartily by an understanding citizenry within a 14-month period—no taxes, no bonds, no outside aid, no burden of debt. Indianapolis architects have made all the designs, and Indianapolis builders and workmen will be used.

Realization that Indianapolis was woefully short of hospital beds didn't exactly burst suddenly upon a surprised populace. But the shortage grew rapidly to alarming proportions commensurate with the city's feverish industrial mushrooming during World War II. Everybody knew it but could do nothing about it until the second A-bomb fell in Nagasaki.

By that time there was a waiting list of 1,000 patients virtually beating upon hospital doors for admittance, putting off operations, taking chances, getting along somehow, or dying quietly at home.

The city's excess population over available hospital beds was like South Bend without a single institutional cot. An epidemic would have inscribed a Hoosier scar on history.

Aware and trembling over what could happen was the medical profession, the Red Cross, and civil defense authorities. Those of us on the patient level only knew that mothers were going home 1 day after childbirth, that 3 days was a long stay for appendectomy, and we were grumbling if we had to occupy a cot in a busy hospital hall; surgery often was delayed 6 weeks.

The Marion County Medical Association appointed a ways and means committee. All kinds of suggestions were considered. A city bond issue, a county bond issue, a joint city-county bond issue, an appeal for emergency Federal hospital funds. Estimates would have to be made, land would have to be sought. All that was known for certain was a grievous need. And out of that need a vision was born.

Business and industrial leaders were called in, consulted, and made members of the team, along with civic minded citizens, legislators, workers, unions, professions, locking arms instead of horns, all inspired with a realization that this was a matter of "not who's right but what's right" a belief in the "rightness of things" and the "quickest way is the best way."

A permanent committee was formed on the new concept of participation. Using preliminary money grants from the medical society and the Eli Lilly Foundation a firm of professional hospital experts was employed to conduct a 9-week survey in April 1951, at a cost of $25,000 to "get something on paper" to see what actually was needed, in such a form that it could be proved to the city.

As foreseen, the survey reported, "An acute shortage of hospital space exists that cannot be exaggerated." It recommended 1,327 more hospital beds and $19,450,000 in new hospital construction. It was decided that $12 million would be raised by popular subscription for the more immediate phases, and an additional $7 million would come later by taxation for Indiana University Medical Center expansion, for Indianapolis General Hospital, and by private subscription for St. Vincent's Hospital.

The teeming, rapidly expanding east side, with its multiple industrial construction and housing projects would need a brand-new hospital. Additions to Methodist and St. Francis Hospitals and rebuilding of Norways would suffice to tide over the short term emergency.

A nonprofit charitable corporation with a 37-member board, Indianapolis Hospital Development Association, Inc., was organized with Edward F. Gallahue, president of the American States Insurance Co., as chairman. The wheels were moving; there was something on paper; the spirit was there; the way ahead was long but the visibility was good. And Indianapolis girt up its loins to attempt the second largest public subscription hospital drive ever attempted by any city. (Detroit took 4 years to raise $20 million.)

Beautiful, modern, functional buildings began to take shape on architects' drawing boards, and the machinery for this city's race for time against disaster was bolted together. The gifts were to be from the heart—reflecting each individual donor's feeling of responsibility—a metropolitan adoption of the battle cry of the Musketeers: "One for all, and all for one."

The big push is now history. Within 14 months Indianapolis subscribed more than 4 times as much as the community ever had poured out at once for civic or charitable purposes. By the time victory was announced at a big dinner, December 17, 1953, more than 2,300 business enterprises had made pledges averaging nearly $50 per employee; more than 110,000 individuals had pledged more than $4,500,000. One hundred foundations and nonprofit philanthropic

organizations had subscribed more than $1 million. There was an oversubscription of more than $140,000.

The drive had received national recognition in newspaper accounts. President Eisenhower said it was "* * * tribute to excellent organization, rare diligence, and warmly responsive citizenry * * * commendable spirit of self-reliance * * * stirring example to all people everywhere."

And it was a victory for something else too; every hospital, as a result of a suggestion by the mayor's commission on human rights, agreed to accept patients henceforward "without regard to race, color, or creed." To the large Negro population the answer was a definite "Yes."

Of the more than $12 million in pledges, more than $7 million already has been collected in cash. Of this, $6,500,000 has been invested in interest-bearing Government bonds until actual building starts. Campaign expenses were unusually low (2.1 percent), $250,000.

During Hospital Week a short reactivation drive will be conducted to pick up loose ends, to bring into the total plan many who had no opportunity to subscribe originally—such as new residents in the city, companies unable to conduct campaigns a year ago, individual donors who may wish to subscribe to memorials in honor of relatives or friends. Funds subscribed in this short drive will be ample to replace pledges which, for one reason or another, may be uncollectible over the 3-year period for payment of pledges.

With justifiable pride, Indianapolis now is answering how-to-do-it questions which flood in from other communities who are telling themselves, "If Indianapolis can do it, why can't we?"

The reason I took the committee's time to read it is that that article appealed to me as representing the pioneer spirit in this country, the spirit that made this country great and the spirit that is making this country today. It is a spirit that was not always looking to the Federal Government to do something that the local community could and has the capacity to do for itself.

In view of that situation at Indianapolis, I just wonder why we should use appropriated Federal funds for a project, such as we have been discussing, at Louisville, Ky. I feel that the people of Louisville have just as much capacity, and are just as civic-minded, and are just as much interested in this problem as perhaps the people of Indianapolis.

Now, I would like your comment on that, Doctor.

Dr. CRONIN. Mr. Chairman, I think the story you have read about Indianapolis and what the people did there was a very, very fine thing, a very commendable thing. It has happened in many other places over the country.

I know also that the Hill-Burton program has acted as a stimulus to get hospitals built throughout the country without Federal aid in many, many places.

I also know that the standards established under this hospital survey and construction program are being utilized throughout this Nation and throughout the world as the basic standard, minimum standard, of good hospital construction, in order to be conventional and to provide quality in hospital construction.

I also know, too, that in the State of Indiana, there were 43 other projects which did utilize Federal aid, and they were willing to do so because it was felt that it was needed.

Now, whether or not the city of Louisville, or the citizenry of Louisville, felt that Louisville could undertake to carry on the total cost of hospital construction without the use of Federal funds is something that I think only the people of the city of Louisville properly can decide. They did come to a conclusion on it, and decided

that they would accept the use of Federal funds, which I also think is indicative of how they wanted to do it. I am a great believer as an individual, and as a public official, that the community should be making the decision on how it wants to do the thing. I think that is the background of our belief in democracy. There is no forcing of Federal funds under this program.

Mr. BUSBEY. You commented a few moments ago that there were 43 other communities in Indiana which did accept Federal funds. I spent 2 days with the planning board of the State of Indiana, and I might say they were full days, from early morning until very late at night, regarding the situation as to why they applied for funds for the so-called food service center, and I was told at one of those meetings that at the time the project was approved, there were no other approved applications on file with the State of Indiana.

I think that that might differ with some of the information you have in your office, but that was what I was told in one of those conferences.

STATE HEALTH DEPARTMENT BUILDING IN LOUISVILLE

Now, if I may get back to the city of Louisville for a moment, will you state to the committee what was the amount of Federal participation in the State health building at Louisville, Dr. Cronin?

Dr. CRONIN. The State department of health laboratory at Louisville carried a total estimated cost of $485,500; the Federal share estimate is $323,667.

Mr. BUSBEY. That project was to add two additional floors on the then existing State health building in the city of Louisville; is that correct?

Dr. CRONIN. I do not know, Mr. Chairman, because I cannot remember the details of 2,200 projects. I can find that out and put it in the record for you if you wish.

Mr. BUSBEY. You may check that and if you find I am wrong, you may correct me.

Dr. CRONIN. We can put it in the record, Mr. Chairman, in detail.

(The requested information follows:)

STATE HEALTH DEPARTMENT LABORATORY, PROJECT NO. KY.–50, LOUISVILLE, KY.

DESCRIPTION OF PROJECT

The project consists of the addition of 2 additional stories designated as the fourth and fifth floors, with a total gross floor area of 17,500 square feet, to the Kentucky State Board of Health Building, 620 South Third Street, Louisville. The project was approved September 12, 1951, at a total cost of $485,500 of which $323,666.67 was the Federal share.

PURPOSE OF THE PROJECT

To house the laboratory functions of the State health department. The project includes space for a research laboratory, enteric laboratory, dustproof room, miscellaneous bacteriology, TB laboratory, (2) serological laboratories, serology preparation, media culture, sterilizing room, glassware washroom, sanitary bacteriology, sanitary chemistry, balance room, special instruments, industrial health, animal room, dismembering room, inoculation room, clean animal room, and necessary storage space and appropriate offices for the directors of these departments.

Mr. BUSBEY. I inspected the project in Louisville and the funds were used to put two additional floors on the then-existing building,

and one floor is to be used by the public health engineers, and the other floor was to be used as a testing laboratory.

I am not saying they should not have been given the funds under the law, or under the regulations, but the question in my mind is why should we be participating in all of these related projects that municipalities and States are in a position, and should be carrying out themselves. Then we could be using the Federal funds to build hospitals. You come in here and tell us of the tremendous shortage of beds in the country.

Here you are spending $323,667, according to your testimony, of Federal funds, to help the State of Kentucky build an office building to house the various divisions of the health department in the city of Louisville. Do you think we ought to be spending funds for projects like that, when there is such a tremendous shortage of hospital beds in the country, according to your own testimony?

Dr. CRONIN. Mr. Chairman, I very definitely do think so, and I will be glad to tell you why.

In the first place, I would like to establish that—and this is not just my thought on this, because it necessarily is controlled by what is in the law, and we are very rigidly bound by the law, on what we can do, as I think everybody understands.

I would like to talk to you just a little bit about the utilization and the running of a State health department laboratory, and the total problem that it faces in this country in maintaining a healthy populace.

In that State health department laboratory in Kentucky, as you have noted, the State did have the test laboratory facilities. And by that I assume they mean it has the testing laboratory facilities which do blood and other tests which are sent to that laboratory from all parts of the State.

Mr. BUSBEY. As I understand, the biggest part of the laboratory was used by the agricultural and dairy division of the State health department.

Dr. CRONIN. Which must be a part of a public health department, as you can see.

Mr. BUSBEY. Oh, yes.

Dr. CRONIN. And what I am going to comment on, I think, is applicable and apropos of that matter; and, that is that if they do not have located in the State of Kentucky, and usually at the capitol, where there is a medical school—and there is no medical school, State medical school—there is a school, medical school, located in Louisville, the city of Louisville has the only medical school, and it is natural to assume that the laboratory would be located nearby, or in close proximity of the medical school, which is the place where we have the scientists congregated.

If the State of Kentucky, at the State public health laboratory, did not have facilities for doing blood tests, for syphilis, and doing such tests for various viruses and so forth, such facilities would have to be established in many of the hospitals throughout the State. Those facilities being centralized at the State health laboratory in Louisville can render assistance and services on a statewide basis much more economically, both from a capital outlay and from the standpoint of operational expenses, and since we are talking about the question of the proper treatment of people, it is important that we have these facilities to meet such conditions.

Mr. BUSBEY. How many hospitals in Louisville would use this service?

Dr. CRONIN. Necessarily all of them.

Mr. BUSBEY. In Louisville?

Dr. CRONIN. Practically all of the hospitals in Kentucky will use the service. I am thinking of the very essential, the matter you referred to, dairy and agricultural and especially milk tests and so on. Milk, as you know, is one of the spreaders of undulant fever, and it is very hard to track it down. It has created terrific economic loss in this country in hours and days losses, and it has created a great deal of economic loss to the Nation.

Mr. BUSBEY. But what about the Department of Agriculture work?

Dr. CRONIN. The Department of Agriculture does work on it but not from the standpoint of human beings.

The work that is being done at the State health laboratory in Kentucky would not be like other projects at hospitals. They have to have the facilities to make the necessary tests and to make the necessary examinations of blood to determine whether a person was suffering from undulant fever, and they do have those problems. And, I think it is only right and proper that we supply Federal funds to the State health laboratories to render the necessary ancillary service which they would have to have; and if we did not have the services there, they would have to be put in the other hospitals.

Mr. BUSBEY. But why cannot the State do it without having to come to you for Federal funds?

Dr. CRONIN. That is for the State to decide, not me, and I think it is proper for them to decide.

Mr. BUSBEY. I have been talking here, day after day, on the philosophy of responsibility, and I have been waiting for several years, as a member of this committee, to have somebody, from some department, come up here—I have said this before and I am going to keep on saying it probably several times before the hearings close—I have been waiting for someone to come up before this committee and make a suggestion as to how these things could be done in a way whereby the States would shoulder a larger responsibillty.

I wish somebody would have the convictions, and have the courage of their convictions, to come up here and say what they think, although it may not be in keeping with the thinking of their superiors; and I don't have reference to you or to the Department of Health, Education and Welfare when I say that. I am just making a general observation.

Dr. CRONIN. Mr. Chairman, I am perfectly willing to tell you that I believe very much in the principle enunciated by Abraham Lincoln in a speech with reference to the role of Government, which he said was to furnish the things the people need and had to have, to try to give them things they were unable to do for themselves. And the principle thinking underlying this program is a perfect example of that particular principle that Abraham Lincoln advocated.

Mr. BUSBEY. I also subscribe to the same philosophy enunciated by Abraham Lincoln, but it has not been proved as yet that the city of Louisville was not able, or the State of Kentucky was not able to do these things without the use of Federal funds, so I do not think that the statement of Abraham Lincoln would apply here.

Dr. CRONIN. Well, I am just an administrator, trying to do the best I know how, and I think it is for the people in Kentucky to decide what they think should be done.

Mr. BUSBEY. I appreciate that, and I am not criticizing you in the least in the administration of the program, as the law says it should be done, but my criticism is aimed at the policy of not making an attempt to get people in the local communities, the cities and the States, to assume their responsibilities.

OCCUPANCY RATES

Now, if I may, I would like to get back to the task-force report. I hate to keep harping on the occupancy rates, all of the time, but Doctor, would you say there has been much improvement in the matter of occupancy rates during the past year?

Dr. CRONIN. In regard to which group?

Mr. BUSBEY. General hospitals.

Dr. CRONIN. Throughout the Nation? In all of them?

Mr. BUSBEY. Throughout the country. You can separate them if you wish, or you can combine them.

Dr. CRONIN. That is a very difficult question to answer, Mr. Chairman. I know what information we acquired for the group of hospitals which we furnished to the investigator, that came to us. I have the statistics on those hospitals. We did not gather statistics on the occupancy rates throughout the Nation. But they are available; they have been compiled by the American Hospital Association, and we can readily supply them. I think the occupancy of hospitals, to a fair degree, is in accordance with the demand of the hospital service by the people who live in the community.

MISSOURI PROJECT NO. 20

Mr. BUSBEY. Referring to page 6, under Missouri project No. 20, which is a general 50-bed project, there apparently is a recent report on the occupancy rate. I assume, Doctor, that must have been secured by your Division?

Dr. CRONIN. We have what we gave to Mr. Gromel.

Mr. BUSBEY. Can you tell us what may the expected occupancy be in the next 2 years while you are looking up the other data?

Dr. CRONIN. While that is being looked up, Mr. Chairman, I would like to comment on that matter, of the occupancy for the next 2 years, and what it would be.

We are not able to provide the Milan rate offhand. If it were a new hospital in a town that never had a hospital before—and we have over 465 such projects under the hospital survey construction program, if it were a project in a town—and may I say there are 165 of this character—where the only hospital facility was a 2-bed room in a physician's home, and if it were in one of those kinds of towns——

Mr. BUSBEY. But this is a 50-bed hospital.

Dr. CRONIN. I know, but we still have over 600 projects of towns that never had a hospital before and they could be 50 or they could be 10, or whatever it may be. And if it is in the kind of town that never had a hospital before, the occupancy rate of that particular hospital,

in a town of that kind, is not likely to be very high for the first 2 or 3 years, or even for 5 years, because the people have not learned how to use such a hospital in the town.

Mr. BUSBEY. Incidentally, they say in this report that the population of the entire county is reported to be 11,000 and that the chairman of the housing board indicated that the sentiment of the community was about equally divided concerning the need for the hospital. The project was opened in May 1953 and in November, some 6 months later, the hospital had 2 inpatients.

Dr. CRONIN. We have no information here on Milan, and we did not furnish, so far as I know, to the investigator, any information.

Mr. BUSBEY. I am talking about their being a difference among the people in the community concerning the hospital project.

In that connection we had a statement here the other day concerning one hospital, where they got subscriptions for the hospital to be located at a certain place in the town, and the board later decided to select another location, and some of the people who had subscribed to the hospital on the basis of it being at the first location, refused to fulfill their subscriptions. So that is another thing you run into in a program of that kind.

Dr. CRONIN. Mr. Chairman, I found out a long time ago that human nature is the most prevalent thing on earth and it does not always run true to form. That is true in a program of this kind, the same as in others.

HOME CARE RATHER THAN HOSPITALIZATION

Mr. BUSBEY. Has there been anything done to turn the trend of demand for hospitalization by encouraging home care, wherever possible, instead of providing clinical beds?

Dr. CRONIN. Mr. Chairman, in many parts of the country, there have been programs providing home care. In New York City, at the Montefiore Hospital, which is one of the first hospitals in the country, and incidentally it was under Dr. Bluestone, who is one of the great men in hospital administration in our Nation, that they instituted a program of home care. Now home care is in reality an attempt to get people out of overcrowded hospitals into their own homes, when they are able to be cared for in their own homes, by supplementing the normal facilities used in their own homes, with the advice and guidance and even, to some extent, equipment, such as hospital beds, in their own homes, by a group who know about caring for the needs of people who are ill.

Now, home care in a city such as New York, works out very well in many instances. It may not in a small town do so well, because in some small towns, in some cases, it may be regarded as interfering with the prerogative of the private physician. The small town hospital does not always have a staff, a full-time staff with paid physicians and a full-time worker that can be sent to the home.

Many of the health workers, particularly physicians, in the small town hospital, are only there a part of the day, and he has his own practice to take care of. He might even regard the home care program in the small town as invading upon his rights, interfering, you might say, with private enterprise.

So that the home care program, like everything else in the field of care, and hospital care, has to be related in order to fit the particular pattern of the basic local findings of need of the community. That, in my opinion should be determined by the people who live in the community.

WEST MEMPHIS PROJECT

Mr. BUSBEY. There has been a little concern about the Hill-Burton project at West Memphis, Ark., which is right across the river from Memphis, Tenn.; Memphis being a rather large medical center. I hope I am wrong but I certainly question somebody's judgment in putting a hospital of that size right across the river. Have you had any recent financial report, or any report at all, on that hospital since it was opened?

Dr. CRONIN. All I know about the West Memphis Hospital is that about a year ago they were having some difficulty, and in rather recent months the State agency director's report from Arkansas—and he was not here due to some reason that he could not attend the association meeting, and all the information I have about the project, and I have no recent information, which leads me to assume that they are getting along very well, because we have not heard anything about it otherwise.

I know they did intend to hire someone to put the hospital before the people so the people could appreciate what the hospital was; appreciate the fact that they would not have to go over to Memphis; cross the bridge; that they had a good hospital in West Memphis, with adequate facilities. They were using a firm to do a public-relations job. Someone who was here about a year ago thought that if the West Memphis hospital were written up presswise—and I am sure if they do a proper job, it will be put before the people. We have no indication or report on the West Memphis hospital since then.

Mr. BUSBEY. Could you obtain for the record a report on the present occupancy of the hospital?

Dr. CRONIN. I will be glad to do so. It may take a little time but we will try to get it as soon as we can.

Mr. BUSBEY. I do not think it will take such a long period of time but what we can get it in the record.

(The information requested follows:)

The occupancy rates for Crittenden County Hospital, West Memphis, Ark., for the first 4 months of the calendar year 1954, are: January, 62 percent; February, 69 percent; March, 50 percent; and April, 51 percent. Net operating profit, the current year to date, is $2,400. Net current profit calendar year 1953 was approximately $7,500.

Mr. BUSBEY. Do you have any idea of the amount of money that was spent in trying to sell this project to the people of West Memphis?

Dr. CRONIN. I have not, Mr. Chairman. I would like to point out, since I know a little about it—I have seen the Arkansas State plan—that it is not just for people of West Memphis, but it is the country around West Memphis, the trade area up and down the river, and the people who come to the hospital are not just those who come from West Memphis but some of them may be coming from rural towns.

Mr. BUSBEY. West Memphis, of course, is closer than Little Rock, which has a medical center, but it seems to me if I were going to get

hospitalization and medical care, it is only natural that I would like, as a good many other people, to go over to Memphis if I lived close to it.

Dr. CRONIN. But there are other controlling factors, Mr. Chairman, and that is, Where does the physician have the staff privileges? The chances are that you would go to the hospital where he has staff privileges. And if he has staff privilege at the Memphis hospital, you will likely go there if you want him to take care of you.

Mr. BUSBEY. The doctor is not likely to also have staff privileges at West Memphis, the physicians from the local communities back away from the river——

Dr. CRONIN. Those that are in local communities far back from the river usually will go where the doctor wants them to go.

Mr. BUSBEY. And those doctors who are in Memphis, specialists in many instances, may be selected rather than the one at West Memphis.

Dr. CRONIN. The hospital at West Memphis should have some special services. If they maintain a hospital, with specialties, it can very well drain off a part of what is going over to Memphis. That happens many times.

Mr. BUSBEY. When the State planning board submitted its plan for the West Memphis hospital, did you point out certain adverse factors to them, call to their attention what things should be taken into consideration, before going ahead with the plans for the hospital?

Dr. CRONIN. We do within the minimum program staff available. I am glad you referred to the State plan in this connection because the State plan itself comes through the Surgeon General's Office and must be approved by him, by law. Again there is a small staff in the regional office which submits comments on the State plan and makes innumerable suggestions and innumerable questions arise so that we do look over the situation, limited only by the personnel, with the finances available, to see that they do get a good State plan and that we do not duplicate. And may I add that they have done a very fine job, the people at the State level, in the formulation of their own plans; they do a very good job.

Mr. BUSBEY. I do not mean that they were not, but at the same time, I think we also have a responsibility to point out the pitfalls that might be avoided.

Dr. CRONIN. I made that statement to bring out for the record that I was not claiming that we have all the knowledge in the Federal office on the program at headquarters, but we do believe that one of the necessities for this program has been the very fine cooperative relationship between us and the State agency people.

EFFECT OF OVERSUBSCRIPTIONS ON FEDERAL PARTICIPATION

Mr. BUSBEY. What happens when a community has its own fund-raising campaign to obtain its matching funds and it is oversubscribed? Are those funds used to reduce the Federal participation in any way?

Dr. CRONIN. No, sir. It could be. It is not beyond the realm of possibility, but as far as I know, it has not happened.

Mr. BUSBEY. But it is not now being done?

Dr. CRONIN. But there is another side to this. I remember as you do too, that in the early days, a hospital depended primarily on charity. Hospitals were financed through gifts. And in many of these hospitals if they do oversubscribe in their campaign the necessary funds to erect and construct the building, they utilize the oversubscription to operate the hospital because they all know they are going to have to spend more money because hospitals, by and large, are not making a profit. So if they did raise more money, oversubscribe the funds requested, the money becomes available for other projects in the State.

PETERSBURG VA., PROJECT

Mr. BUSBEY. There is a hospital at Petersburg, Va., which was built with Hill-Burton funds. What was the total amount of Federal funds allocated to that project, Dr. Cronin?

Dr. CRONIN. According to our report on the Petersburg Hospital, at Petersburg, Va., which is a 180-bed hospital, the total estimated cost was $3,107,000, and the estimated Federal share was $1,454,248.

Mr. BUSBEY. After they obtained the Federal funds, did not the hospital association have quite a surplus of funds of their own left over?

Dr. CRONIN. I do not know exactly, but I have a recollection of it. In Look magazine some comment was made in regard to this hospital. I do not know what the details were, but I think they were saying in this article what a fine thing it was for communities to try to build up their community facilities, and I think this hospital was one of them. Now, whether they oversubscribed their amount, I am not sure. I think the investigator asked a question about that, and Mr. Hilsenroth can look it up for you. They did subscribe, but I did not know exactly how much they subscribed. We can put that in the record for you if you desire to have it.

Mr. BUSBEY. Maybe I had better read what the task force put in the report here. It says:

Petersburg, Va., obtained approval for a $3.1 million general hospital. Funds were obtained from the following sources:

Hill-Burton	$1,454,248
State aid	254,602
Applicant's share	1,398,150

Dr. Cronin reports that the sponsor's share was obtained through a grant from the city of Petersburg and by a fund-raising campaign. The application shows that, in addition to cash on hand, a grant of $440,000 was made by the city. A loan of $460,000 was made available to sponsors, the loan to be secured by pledges. Face value of pledges exceeds $1 million.

Dr. Cronin also states:

"The results of the fund-raising campaign had no effect on Federal participation. An applicant is entitled under the law to Federal aid equal to the percent of the total cost fixed by the State agency as the rate of Federal participation for all projects, in this case approximately 47 percent."

The same Look magazine article, in describing Petersburg as another winner, mentions the $3 million, 180-bed general hospital, and, in describing the campaign for funds, states:

"The number of volunteer workers, including many civic groups, increased rapidly, and more than one-third of Petersburg's 35,000 people gave so generously that the goal fixed at the outset of the drive was exceeded by 50 percent."

Dr. Cronin's office reports that the original part 2 submitted for this project showed the following financial data:

State aid	$349,382
Cash on hand	529,290
Grant from city	440,000
Pledges received, $1,100,000 (with a cash value based upon a loan commitment received)	460,000
Total	1,778,672

It is interesting to note that the part 1 form submitted by the applicant showed State aid of $349,382, as against State aid shown in the final part 4 as $254,602. It is also interesting to note that the pledges of $1,100,000 were valued at only $460,000. The applicant apparently has a potential surplus in this case consisting of the following:

Difference in applicant's share between part 2 and part 4	$380,522
Difference between face value of pledges and loan value	640,000
Difference between original State commitment and final commitment	94,780
Total	1,115,302

This surplus is presumably available either for retention or for expenditure in increasing the scope of the facility or its equipment.

Now, I have seen the hospital, although I have not been down there since it has been opened. What is your thinking on projects like that? Do you think that the law ought to be amended so if a community gets an oversubscription on their drive that Federal funds could be reduced?

Dr. CRONIN. Let me put it this way: In the first place I do not think it is exactly correct to assume that if they discounted their pledges when they were over $1 million, and they discounted them down to $460,000, that they had a surplus of money in the amount of that discount on the pledges.

I have been through too many campaign funds and campaign drives not to know that sometimes pledges given in the heat of emotions around a dinner banquet in the evening are sometimes given for the primary purpose of not letting the other fellow in the same competitive business you are in know that you are not doing too well.

Very frequently those pledges, when you go around to collect them, are worth under 50 percent of the face value of them.

Mr. BUSBEY. Off the record.

(Discussion off the record.)

Dr. CRONIN. So, I feel if I were to make a statement on the amount of campaign funds raised, if it were predicated on such flimsy evidence as the amount of pledges received I would not have any assurance of feeling that that project, or that those sponsors, could raise the actual dollar value necessary to build that hospital and to match the Federal money.

Mr. BUSBEY. Just assuming that the figures are correct, the pledges would have to be discounted almost 50 percent, according to this article, to come out even.

Mr. FERNANDEZ. You do not give grants based on pledges, do you?

Dr. CRONIN. No, sir.

ESTIMATED COSTS AS BASIS FOR FEDERAL PARTICIPATION

Mr. BUSBEY. If we have participation, let us say, on a 50–50 basis, and there is a $2 million project involved, the Federal funds would amount to $1 million. I say "we," speaking the same as you, as a

servant of the Federal Government. If that project, instead of costing $2 million, as anticipated, turns out to only cost $1,600,000—that may be a little extreme, but it will suffice for the example—on a 50–50 basis it seems to me that it would reduce our participation by $200,000. Now, do we have to go through with the $1 million grant?

Dr. CRONIN. Mr. Chairman, our participation in that instance would be half of what the project actually costs and we would get a cutback, or the State would not have paid out the money, is what it amounts to. In other words, if the project, as you say, was to cost $2 million the Federal participation would be $1 million on a 50–50 basis. This was on an estimate basis, but in the final analysis this program is a payment for services rendered on the program, and no money can be paid out of Federal funds without identifiable costs being presented.

Although the project might have been estimated on at a cost of $2 million if, in the final analysis, when the books are all in on it, the project only costs $1,600,000, the Federal share would only be one-half of $1,600,000, instead of one-half of $2 million.

Mr. BUSBEY. Notwithstanding the fact that the Federal share was committed as $1 million?

Dr. CRONIN. The Federal share is not committed as $1 million. That is submitted as an estimate. We pay only on the identifiable costs incurred and there may be some considerable difference between them.

Mr. BUSBEY. And that difference would go back into the unallocated funds of the State?

Dr. CRONIN. That is correct, if the statute of limitations on those funds had not run out. If they had run out, then those funds come back to the Treasury of the United States, and that is what comprises the bulk of the very low figure of less than $1 million that we have returned to the Treasury of the United States from the very large sum of $607½ million which has been appropriated to date since the beginning of the program.

Mr. FERNANDEZ. More often the projects cost more than they are estimated to cost?

Dr. CRONIN. That is correct, sir.

Mr. BUSBEY. I thought that these Federal projects, Mr. Fernandez, were different.

Mr. FERNANDEZ. Human nature is human nature everywhere and costs are rising everywhere too.

Mr. BUSBEY. When the Hill-Burton formula was worked out, it was based on several factors, and was not one of those factors an estimate that average occupancy would be 80 percent?

Dr. CRONIN. No, sir, not necessarily.

Mr. BUSBEY. Was there not a factor of 80 percent occupancy taken into consideration in working out the Hill-Burton formula?

Dr. CRONIN. No, Mr. Chairman, there was not, because 80 percent occupancy is a goal, Mr. Chairman, that most of the hospitals in this country will never achieve unless there is a complete stoppage of hospital building. We are talking about average occupancy rates, and the average occupancy rates vary with the size of the hospital, and it is only the larger hospitals of 100 beds or better that get near that. The 80 percent occupancy referred to is average occupancy.

UNAUDITED PROJECTS COMPLETED OVER 6 MONTHS AGO

Mr. BUSBEY. Could you inform the committee as to how many Hill-Burton projects have been open for more than 6 months without final payment of Federal entitlements?

Dr. CRONIN. We can submit that for the record, sir.

Mr. BUSBEY. All right.

(The matter referred to follows:)

The number of projects with Federal aid under the hospital survey and construction program open to patients for 6 months or more (since August 1, 1953) and not yet audited number 59.

Mr. BUSBEY. What is the aggregate amount of Federal funds still due on hospitals that are now in operation, but where the project has not been closed as to final payment?

Dr. CRONIN. We will have to submit that for the record, too.

Mr. BUSBEY. All right.

Dr. CRONIN. I can submit this now, Mr. Chairman.

Of the 1948 funds, the unliquidated balance is $562,375 out of $75 million.

Of the 1949 funds, again in the amount of $75 million, the unliquidated balance is $1,433,209.

Mr. BUSBEY. It would be perfectly all right to submit a table for the record on that, Doctor.

Dr. CRONIN. All right, sir.

For the remaining 59 projects open since August 1, 1953, but not yet audited, the total funds remaining unpaid to the sponsors amounts to $2,087,772.

REASON FOR DELAY IN MAKING FINAL AUDIT

Mr. BUSBEY. I have heard that there are attempts now and then on the part of project sponsors to resist attempts to make the final audit and final payment of Federal funds. Why is that; what is their object in that, Doctor?

Dr. CRONIN. I do not think that is basically factual, Mr. Chairman, because I do not think they do resist those attempts.

Mr. BUSBEY. Well, there are a lot of times when the State auditor thinks he should go ahead with the final audit, and they keep telling him that they are not ready for the final audit.

Dr. CRONIN. I can think of some reasons why a project would not be ready for final Federal audit, and they would most center around the nondelivery of equipment items for the hospitals.

We went through a period in relation to the Korean incident where we had shortages of certain alloys and of nickel, steel, and aluminum of which most hospital equipment is made.

Although orders were very slow in being placed and filled, and the projects were not ready to have it, they had not yet received their equipment and it would be impractical to try to audit a project without all of the equipment being delivered to the project.

Mr. BUSBEY. The task force reports a situation in South Carolina on page 14 of their report to the committee as follows:

The program director of region 6 reported the status of 11 projects opened between October 1950 and September 1952 and added—

"In addition, there are 16 health centers and auxiliary health centers which have been open from 1 to 2 years that have not been terminated."

While there have been periodic State agency staff shortages and malassignments, there is, in our opinion, no adequate excuse for not closing out these projects. Our most recent request for action has gone direct to the State health officer.

Why should that be held up over the request of the program director of the region for such a long period of time?

Dr. CRONIN. I do not know exactly what your investigator has reference to, but I can tell you this, that a summary of our audit situation as of March 31, 1954, shows that of the 1,541 projects which have been opened, 1,399 have had their audits, which leaves us in all of the whole country, out of 1,541 opened projects the very small number of 142 projects which have not yet had their audits completed, and most of those are in the process of being audited.

Mr. BUSBEY. They also refer to three projects in Iowa, projects Nos. 20, 23, and 25. Would you check the situation and see what is the current status of each, and put the information in the record, please?

(The information requested is as follows:)

Iowa No. 20—Guthrie County Hospital, Guthrie Center, Iowa

This facility was opened to patients in November 1951. The building has shown moisture leakage and some cracks from building settling. The applicant has not asked for final payment until he has had a satisfactory adjustment with the contractor, that is, either complete correction of the condition or a reduction in contract price.

It is anticipated that an audit can be requested by July 1, 1954.

Iowa No. 23—Sioux Center Community Hospital, Sioux Center, Iowa

This facility was opened to patients in June 1951. Some laundry equipment has not yet been delivered and a large bronze plaque showing the names of the contributors was ordered but has not yet been delivered. They anticipate receipt of this equipment by July 1, 1954, and as soon as it is received an audit will be requested.

Iowa No. 25—Community Memorial Hospital, Sheldon, Iowa

This facility was audited and received its final payment of $6,977 in February 1954.

Dr. CRONIN. Very good, sir. What is the project number on South Carolina that you had reference to?

Mr. BUSBEY. The report does not give any project number. It said:

The program director of region 6 reported the status of 11 projects opened between October 1950 and September 1952, and added—

In addition, there are 16 health centers and auxiliary health centers which have been open from 1 to 2 years that have not been terminated.

I take it by termination he means the final audit.

Dr. CRONIN. That is right. I am glad to know that.

Mr. BUSBEY. According to this report, still quoting the program director of region 6:

While there have been periodic State agency staff shortages and malassignments, there is, in our opinion, no adequate excuse for not closing out these projects. Our most recent request for action has gone direct to the State health officer.

Dr. CRONIN. I think he has reference to the fact that the Federal Government cannot send in a Federal auditor to make the final audit until the sponsor of the project requests the State agency officially for the audit, and then the State agency requests the Federal official to have the auditor come out and make the audit.

Mr. BUSBEY. But these projects that they are talking about here have been open, some of them, as far back as October 1950.

Dr. CRONIN. That certainly could not happen under the new rigid policy on audits. We are glad to know about that, Mr. Chairman, and we will check into it.

Mr. BUSBEY. Just check it and make a statement for the record on it, please.

Dr. CRONIN. Yes, sir; we shall be glad to, Mr. Chairman.

(The matter referred to is as follows:)

As of April 30, 1954, our records indicate four South Carolina projects opened prior to August 1, 1953, and not as yet audited. Final payments amounting to $157,346 are outstanding.

RELATIONSHIP BETWEEN AUDITORS AND PROGRAM STAFF

Mr. BUSBEY. On page 15 of the task force report under, "Relationship between auditors and program staff," they say:

An illustration for the disregard of the auditors' work is contained in the case of the audit of North Carolina project No. 102, in which the administrative section contained a report of equipment (consisting of 4 tables, 4 costumers, and 5 desk lamps that would not fit desks) stored because it could not be used or because there was no room in the hospital project for it. The auditor also reported "tar from the roof of the building was running over the eaves of the building and also running down through the ventilators throughout the building." In answer to a request by the task force to furnish information as to the action taken on this report, Dr. Cronin, under date of February 23, 1954, replied: "No particular comments were made by the Public Health Service in response to the administrative comments in the audit report."

Now, what action was taken on the auditors' comments, in the administrative section of their reports, for example, on North Carolina project No. 102?

Dr. CRONIN. In answer to the first allegation made, when I made response to the investigator's request, my response should not be taken to mean that we did not, in the Public Health Service, inquire about the situation as expressed by the auditor. It really means that we did not reply to the auditor as to what action we intended to take, or what we would do in the future, or what we could do in regard to that particular project.

As far as I know from what you told me there was no exception taken to the equipment, the tables, the desk lamps, and costumers there by the auditor.

As far as the utilization of the administrative comments are concerned, by all means I welcome any comments that the State director of the program or any auditor or anybody else who visits the project can give me.

However, there are certain angles that I have no jurisdiction of. For instance, tar from the roof running over the eaves, that is a maintenance item. We are not allowed to have anything to do with the maintenance of this project.

However, as far as following through and an investigation of whatever administrative comments the auditor cares to make, we do that, and we have done that routinely.

We have a new audit policy on the general method of handling audit exceptions which has been fairly recently established.

When there is a disagreement between an auditor of the Department and the program officials of the Public Health Service that disagree-

ment will be referred to the Secretary's office for the necessary arbitration, decision, and disposition relating to that project in the proper manner.

We do pay attention to the auditor's comments. We do not necessarily follow them, but we find out about the projects, because basically while the auditors are a part of the total Department, they do not have the responsibility of following through on their administrative comments to us and finding out what we do about them.

RELATED FACILITIES

Mr. BUSBEY. The task force, on page 15, in commenting on "Related facilities," refers to the following:

The Secretary on September 1, 1953, asked the General Counsel to attempt to clarify the language of the law to prevent this kind of administration. However, on September 8, 1953, the Surgeon General submitted the following, among other material, to the General Counsel:

"It has been suggested that the law should now be clarified by amendment, in order to prevent the approval of projects for certain types of facility which, though operated in connection with a hospital and perhaps important in its operation, do not add directly to bed capacity. It is believed that the present authority of the Surgeon General under the statute to prescribe by regulation, with the approval of the Federal Hospital Council, procedures relating to priority of projects and interpretations as to the scope of 'related facilities' is sufficient to provide adequate safeguards against the use of grant funds for marginal-type projects such as have in a few instances given rise to some criticism. This course is believed preferable to a legislative change which, in an attempt to eliminate less essential projects, might jeopardize projects for central facilities which are most needed. Central or related facilities which will permit more effective utilization of existing beds are in some cases more necessary than additional beds."

That entire passage refers to the Surgeon General's memorandum of September 8, 1953, dealing with the question of whether the law should be amended because of what has happened in the case of related facilities.

What is the probable effect on Federal funds in 1955 of the fact, referred to in the statement, that there are now adequate safeguards against the use of grant funds for marginal-type projects such as have in a few instances given rise to some criticism?

Dr. CRONIN. Relative to your total remarks I do not know what the investigator is referring to when he talks about this kind of an investigation.

Mr. BUSBEY. I should have read the preceding paragraph too, which is as follows:

In the administration of the program, however, the Hill-Burton staff has approved projects which indeed are questionable and have resorted to obtaining opinions from General Counsel that the act allowed such approval. As Federal funds were to be used primarily to alleviate any serious deficit in hospital beds, no administrator could possibly justify approving the use of Federal funds to build a calf barn or milkhouse on the grounds of the tuberculosis sanatorium owned by the State of South Carolina. A memorandum from Dr. Cronin, dated May 1, 1953, states that:

"The adjunct services were included only after careful consideration and considerable discussion of the merits of the case by the State agency and the regional office."

Dr. CRONIN. That refers to the opinion, as I understand it, of the investigator, and how he feels about the approval of these related projects, and is not a quote of the General Counsel.

Mr. BUSBEY. Part of that quotation was the comment of the task force, that is correct.

Dr. CRONIN. We are of the opinion, and from the benefit of counsel from the General Counsel, that related facilities that do not add beds are eligible under the act, and they so remain until something is changed under the act.

The approval of such projects is predicated, first, upon eligibility from a legal point of view and, second, upon the role that they play in the total program that a State presents in the State plans backed up by what they specifically state about that particular project in its role in the total program of rendering hospital services in a State.

Now, if such roles, as defined to us in the State plan and in the specific description of the project make sense and are reasonable, feasible, and practical and are legal they will be approved.

Mr. BUSBEY. All right, now, let us forget about the opinion of the General Counsel for a moment and also the law as it is now written. Do you think that such projects as those should be included under the law and the regulations governing the use of Hill-Burton funds, and why?

Dr. CRONIN. Well, each project has to be specifically dealt with.

CALF BARN AND MILKHOUSE

Mr. BUSBEY. The ones that are referred to in this case are the calf barn and the milkhouse.

Dr. CRONIN. That, to me certainly is something that has to be viewed in its total aspects. I was not with the program when the project was approved. I do know something about it because it was in issue last year.

Mr. BUSBEY. I am just asking for your opinion.

Dr. CRONIN. Yes; I personally would approve that project.

Mr. BUSBEY. I am merely asking you for what the lawyers call a curbstone opinion.

Disregarding the General Counsel's opinion and also the provisions of the Hill-Burton Act, I am asking you, as an individual, if you think projects of that kind should be eligible for Federal funds?

Dr. CRONIN. As I understand that project, speaking as a physician, because that is what I am, and thinking as a physician, thinking of that project as a public health official, I would approve that project.

In the first place that is a project which is a part of the tuberculosis sanatorium in the State of South Carolina, and the furnishing of milk to those tubercular patients at that institution is something which is one of the top therapeutic needs as far as the treatment of tuberculosis patients is concerned. The milk they receive is going to, of course, come from the dairy, and so forth, the dairy herds.

Now, that project being a part of a State institution, and that sanatorium being a State institution has as part of its total program a dairy herd. That is normal and conventional in the case of many State institutions. That dairy herd supplies the milk for this tuberculosis sanatorium and no place else supplies it. As part of the tuberculosis sanatorium which is directed to the care of TB patients the use of milk is part of the overall therapeutic program of the institution. The dairy herd and the necessary facilities in connection therewith, and concerning the appropriate care of that dairy herd,

and the protection of the milk for the sanatorium becomes a very vital integral part of the total medical program at that institution. Therefore, that project, in my opinion, was sound in its approval.

I will grant that there will not be many such projects approved, because there are not many such situations throughout the country, but where the situation did come into existence, as was defined in this project, and as presented to our regional office, if I were in the regional office I would approve that project, and if I had been in charge of the division when it came through on the basis of that knowledge and information from the regional program director I would have approved it, because I think it is in the direction of what was the object of the total program of the State tuberculosis sanatorium. That program did encompass a dairy barn and the adequate handling of the milk for those people.

Mr. BUSBEY. Have any instructions been issued to the regional offices to review applications carefully and particularly as to related facilities?

Dr. CRONIN. We have issued instructions on that. When they came in last week we discussed it with them.

Mr. BUSBEY. What was the general nature of the instructions?

Dr. CRONIN. The general nature of the instructions was to the effect that when related facilities came along they should review them to see if they were in line with what was reasonable, feasible, and practical in relation to the State plan of the State.

Mr. BUSBEY. Have you any way of estimating the total amount that will be spent on related facilities if the 1955 budget request is granted?

Dr. CRONIN. No, sir, we have no way of estimating that, Mr. Chairman, because we do not know what the projects are going to be in the 1955 request until they are presented to us.

INDIANAPOLIS FOOD SERVICE CENTER

Mr. BUSBEY. I would like to discuss with you the project that started out to be a food service center at Indianapolis and which now has turned out to be more or less of a students' union building. Would you be willing to supply the committee with a summary of the equipment purchased by type for the students' union facility at the medical center in Indianapolis?

Dr. CRONIN. Mr. Chairman, the final approval of the equipment lists for the food service center building at the University of Indiana in Indianapolis has not yet been completed. We are still negotiating with the State, which is the sponsor, and their regional office for those items of equipment. The audit has not yet been done on that project, nor even requested. We will be glad to furnish you the equipment list when it is finally approved, but it has not yet been finally approved, and we are still negotiating on equipment for that project at the present time.

Mr. BUSBEY. They have not submitted a list to you, in other words, of the equipment that they have purchased to date?

Dr. CRONIN. They would not do that. They would submit to us an equipment list for us to approve it in toto, or to modify it, or to delete some of the items from it, or to indicate to them what we will approve. That is the stage of negotiations that we are going through

now, but the equipment they have already received, we would not have a final list of. We will approve only the essential equipment.

Mr. BUSBEY. What would be our procedure to obtain a list of equipment that has been purchased for that building so far?

Dr. CRONIN. We can request that of the sponsor who will buy both Federal and non-Federal equipment. The State of Indiana has purchased a great deal of equipment for that building which we do not participate in at all. In fact, we are not participating in the whole building. We are participating in a segment of that whole building, which is the food center service aspect of it and the related facilities described in the original project for those five hospitals on the University of Indiana campus.

PENNSYLVANIA PROJECT NO. 74

Mr. BUSBEY. The task force makes a brief reference at the bottom of page 17 of their report, as follows:

> Another example of a related facility requiring a large Federal expenditure without providing additional beds is Pennsylvania project No. 74.

They state:

> Federal participation in this project is limited to an 8-story outpatient department being added to Temple University Hospital at an estimated cost of $3,400,000; $1,345,000 of this amount represents Hill-Burton funds.

Could you tell us briefly about that or describe that project?

Dr. CRONIN. I could not describe that project, Mr. Chairman, because this is the first time I have heard of the project since we were notified it was approved.

From what you say there, however, I cannot see how there will be any question about that project because it is an outpatient department, and outpatient departments are eligible under the Hill-Burton Act. The General Counsel has ruled that they are eligible, and the Federal percentage, and so forth, I would assume would be in line, so there is no problem involved there. The project is eligible.

Mr. BUSBEY. I do not raise a question about the eligibility of most of these allocations of funds. Frankly, so there will be no misunderstanding about it, I raised some of these questions today principally to get something on the record so that it will be there for the consideration of the proper legislative committee if it wants to consider any amendments to the law concerning related facilities. I think it is a proper thing to do as an appropriations subcommittee. If the Congress wants to continue the current law regarding these related facilities that we have been discussing here, that is up to Congress. On the other hand, if some of these things are not brought to the attention of the Congress there is nothing on which to base a reconsideration.

Dr. CRONIN. I may have misunderstood, Mr. Chairman, because from the tone of that report it has been fairly critical, and if I understood it was commendatory I would be well pleased.

Mr. BUSBEY. I think a report of this kind if not intended to be commendatory. That is not the object of a task force.

The object of a task force, as far as I see it, is to survey the situation and raise questions for consideration. I accept their report as being useful for discussion to see if some improvement cannot be made,

because there is no program that is perfect. That is the reason I said earlier that as far as I was concerned, I was going to suggest that not only these reports be turned over to the various departments but also that the people who made the survey and who wrote the reports sit down with the heads of the various agencies so that they can discuss things in a friendly way to see what constructive ideas might come out of that. I mentioned that several weeks ago to you; is that correct, Mr. Larmon?

Mr. LARMON. Yes, sir; that is correct, and we welcome that opportunity, Mr. Chairman.

Mr. BUSBEY. The trouble with a lot of these reports in the past has been that only the membership of the committee might have seen the report. I do not think that is the end result we should strive for in having surveys made of these situations.

Mr. LARMON. Mr. Chairman, if this is to be examined by a legislative committee——

Mr. BUSBEY. No, this is not to be examined by a legislative committee. I am raising the questions so that if a legislative committee might care to look at the hearings, they will see at least the questions that I have raised for consideration, and of course it is entirely up to the legislative committee whether they want to take any action or not; I have nothing to say about that; but I do think I have a responsibility as chairman of this committee to raise some of these questions for thoughtful purposes.

It is a quarter after 4 now and I think we had better adjourn until 10 o'clock tomorrow morning.

WEDNESDAY, MAY 12, 1954.

EQUIPMENT FOR INDIANAPOLIS PROJECT

Mr. BUSBEY. The committee will come to order.

Dr. Cronin, I believe I asked you, yesterday, to summarize the equipment to be purchased, or the request for equipment they wanted to purchase at Indianapolis.

Dr. CRONIN. Yes. Mr. Chairman, you asked me and my reply was we have not as yet finally approved all of the equipment lists that came in on the Indianapolis Food Service Center. Some are not in yet. We have approved lists and supplemental lists. We are in the position of negotiating and making a total survey of the project as to just what the project will comprise in the final analysis. We have not completed that yet.

Mr. BUSBEY. You at least have a list of equipment that they propose buying for the food service center building and that portion of it in which they expect Federal participation, have you not?

Dr. CRONIN. We have a list of equipment, yes, sir, that will cover that.

Mr. BUSBEY. I would appreciate it if you would submit that for the record and indicate what they expect or are asking Federal participation in.

Dr. CRONIN. Mr. Chairman, I would like to point out, too, that although project sponsors may ask for that equipment, it is entirely

possible and in some instances has been the decision of our regional office staff in Chicago that handles the project on an operational basis, that the equipment they are asking for is not eligible equipment and would not be permitted any Federal participation.

Mr. BUSBEY. Yes, but it would give the committee a pretty good idea of what they have asked for and, later, what was disallowed when the final decision was made.

Dr. CRONIN. That is right, and the final decision has not yet been made.

Mr. BUSBEY. All I am trying to get in the record is the list and that list of equipment should take in all types of equipment, including equipment in the gift shop, beauty shop, lounges, etc.

Dr. CRONIN. We will be glad to do so.

(The requested information follows:)

INDIANA FOOD SERVICE CENTER, INDIANA PROJECT NO. 46

The following are the equipment lists contained in the files of the Division of Hospital Facilities in Washington, D. C., on May 13, 1954. These lists were initially submitted by the project sponsor and do not necessarily represent the final items of equipment in which there will be Federal participation of the cost. The final scope of the project and the appropriate equipment have not been determined. The project is still in the negotiation stage between the Public Health Service and the project sponsor (State of Indiana).

Room legend sheet

GROUP II EQUIPMENT

Room No.	Title	Department or subdepartment	Cost
A B001	Gymnasium	Pool (nonparticipating)	
A B002	do	do	
A B003	Equipment room	do	
A B004	do	do	
A B005	Corridor	do	
A B006	Stairs	do	
B001	Women employees lounge	Administration department	$444.00
B002	Women employees locker	do	
B003	Women employees toilet and shower room	do	132.00
B004	Fan room	Service department	
B005	Receiving room	Business office	120.00
B005a	Elevator machine room	Service department	
B006	Corridor	do	
B007	Kitchen dry storage	Business office	636.00
B008	Building supply storage	Service department	201.00
B008a	Blanket storage	do	4.00
B008b	Trunk storage	do	20.00
B009	Electrical equipment room	do	
B009a	Transfer vault	do	
B010	Corridor	do	
B011	do	do	
B011a	Elevator machine room	do	
B012	Furniture storage	do	294.00
B013	Utility and fan room	do	
B013a	Soiled linen chute	do	75.00
B013b	Well pit	do	
B014	Maintenance supervisor's office	do	365.00
B015	Corridor	do	12.00
B016	do	Administration department	
B017	Men employees' toilet	do	62.00
B018	Men employees' locker and lounge	do	
B019	Paper and pamphlet storage	Service department	
B020	Printing room	do	
B021	Men employees' lockers	Administration department	
B022	Men employees' toilet	do	62.00
B023	Men employees' lounge	do	422.00
B024	Housekeeping equipment	Service department	771.00
B025	Women employees' locker	Administration department	
B026	Women employees' lounge	do	437.00
B027	Women employees' toilet	do	92.00
B028	Corridor	Service department	24.00
B029	do	do	
B030	Maintenance and hospital storage	do	
B031			
B032	Employee dining room	Administration department (nonparticipating).	660.00

Room legend sheet—Continued

GROUP II EQUIPMENT—Continued

Room No.	Title	Department or subdepartment	Cost
A001	Alcove	Pool (nonparticipating)	
A002	Storage	do	
A003	Women's shower room	do	
A004	Swimming pool	do	
A005	Dressing room (women)	do	
A006	Storage	do	
A007	Control room	do	
A008	Men's dressing room	do	
A009	Stairway	do	
001	Food storage	Food department	
002	Corridor	do	
003	Receiving room office	Business office	$302.00
004	Receiving room	do	220.00
005	Loading dock	do	110.00
006	Trash and can wash	Food department	200.00
007	Garbage refrigeration	do	
008	Bakery	do	60.00
009	Bakery stores	do	116.00
009a	Ice cream stores	do	141.00
010	Ice cream preparation	do	368.00
011	Ice cream refrigeration	do	
011a	do	do	
012	Bakery refrigeration	do	
013	Corridor	do	
014	Janitor's closet	do	115.00
015	Vegetable preparation	do	260.00
016	Refrigeration (vegetable)	do	
017	Frozen food	do	
018	Dietitian's office	do	925.00
019	Corridor	do	
019a	Dish room	do	200.00
020	Meat preparation	do	2,905.00
021	Refrigeration (fish)	do	
022	Refrigeration (poultry)	do	
023	Refrigeration (meat)	do	
024	Dietitian lounge	do	340.00
024a	Dietitian toilet	do	65.00
024b	Closet	do	
025	Refrigeration (dairy)	do	
026	Corridor	do	
027	Women employees toilet	do	92.00
028	Men employees toilet	do	37.00
029	Ice room	do	75.00
030	Coat room	do	150.00
031	Vestibule	Administration department	24.00
032	Telephone (public)	do	
034	Display room	do	
035	Corridor	do	12.00
038	do	do	24.00
039	do	do	24.00
040	Storage	Bookstore Department	
041	Women's toilet	Administration Department	132.00
042	Women's lounge	do	605.00
043	Corridor	do	
044	Beauty shop	do	1,321.50
045	Barber shop	do	1,100.00
046	Fan room	Service department	
047	Corridor	Administration department	
048	Men's toilet	do	37.00
049	Fan room	Service department	
050	Soiled linen chute	Housekeeper department	
A101	Snack bar	Administration department	1,237.98
A102	Dishwashing	Food department	75.00
A102a	Storage	do	
101	Cafeteria dining room	do	13,391.00
102	Corridor	Administration department	5,136.00
102a	Vestibule	do	24.00
103	Lounge	do	18,457.16
104	Manager's office	do	1,556.40
104a	Secretary's office	do	1,276.97
104b	Assistant manager's office	do	1,171.34
104c	Checkroom	do	200.00
105	Conference	do	734.80
106	Lobby	do	3,124.70
106a	Front office	do	2,685.00
107	Telephone booth	do	
109	Vestibule	do	
110	Telephone booth	do	
111	Closet	Service department	40.00
112	Women's toilet	Administration department	147.00
113	Men's toilet	do	62.00
114	Vestibule	do	
115	Gift shop	Bookstore	7,778.72

Room legend sheet—Continued

GROUP II EQUIPMENT—Continued

Room No.	Title	Department or subdepartment	Cost
116	Corridor	Administration department	$24.00
116a	Vestibule	do	
117	Cook's refrigeration	Food department	
118	Daily stores	do	
119	Kitchen	do	60.00
120	Salad refrigeration	do	50.00
121	Salad preparation	do	300.00
122	Dietitian's office	do	515.00
123	Janitor's closet	do	1,650.00
124	Corridor	do	
125	Cafeteria serving area	Administration department	3,420.00
AM101	Table storage	Food department (nonparticipating).	
AM102	Private dining room	do	
AM103	Corridor	do	
M101	Housekeeper's room	Food department	46.00
M102	Private dining room	do	461.42
M103	do	do	635.70
M104	do	do	635.70
M105	do	do	635.70
M106	Corridor	Administration department	96.00
M107	Conference room	do	476.42
M108	do	do	476.42
M109	Trustee's dining room	do	1,265.36
M110	Trustee's room	do	3,371.90
M111	Men's toilet	do	37.00
M112	Corridor	do	
M113	Women's toilet	do	107.00
M114	Fan room	do	
M115 and M116	Business office	Business office	4,950.00
M117	Apartment	Room department	780.13
M118	Bath	do	5.00
M119	Corridor	Administration department	1,975.85
M120	Janitor's room	Maintenance department	300.00
M121	Storeroom	Food department	46.00
M122	Kitchen	do	250.00
M122a	Corridor	do	
M123	Women's toilet	do	65.00
M123a	Janitor's room	do	50.00
M124	Dining room	do	6,816.71
M125	Storage (chair and table)	do	300.00
M126	Storage linen	do	
M127	Corridor	do	
M128	Coat room	do	150.00
M129	Corridor	Administration department	
M130	Bath	do	
M131	do	do	
M132	do	do	
M133	do	do	
M134	do	do	
M135	Apartment	do	1,493.82
M136	do	do	1,302.20
M137	do	do	1,380.08
M138	do	do	1,362.20
M139	do	do	1,431.42
M140	Terrace	do	40.00
M141	do	do	40.00
M142	do	do	40.00
M143	do	do	40.00
M144	do	do	40.00
Second floor		Nonparticipating	
Third floor		do	
Fourth floor		do	
Fifth floor		do	

GROUP III EQUIPMENT

Administration department	$2,110.12
Food department	35,148.00
Service department	1,470.10
Business office	189.00
Total	38,917.22

GROUP II EQUIPMENT

PROJECT NO. IND-46

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
AB001 Gymnasium			Nonparticipating		
AB002 Gymnasium			do		
AB003 Equipment room			do		
AB004 Equipment room			do		
AB005 Corridor			do		
AB006 Stairs			do		
B001 Women, kitchen, employees' lounge.	1	Each	Bed, day	$60.00	$60.00
	1	do	Table	10.00	10.00
	1	do	Sofa, 2 seat	100.00	100.00
	4	do	Chair, lounge	50.00	200.00
	2	do	Lamp, floor	15.00	30.00
	2	do	Lamp, table	7.00	14.00
	1	do	Picture	10.00	10.00
	4	do	Smoking stand	5.00	20.00
			Total		444.00
B002 Women employees' locker.			No equipment required		
B003 Women employees' toilet and shower.	2	Each	Receptacle, soiled towels	25.00	50.00
	1	do	Urn, sand	12.00	12.00
	3	do	Disposal, napkin	15.00	45.00
	1	do	Vending machine	20.00	20.00
	1	do	Dispenser, napkin bag	5.00	5.00
			Total		132.00
B004 Fan room			No equipment required		
B005 Receiving room	2	Each	Truck, 2-wheel	20.00	40.00
	2	do	Dolly, frame	20.00	40.00
	2	do	Dolly, round	20.00	40.00
			Total		120.00
B005a Elevator machine room.			No equipment required		
B006 Corridor			do		
B007 Kitchen, dry storage	5	Each	Bin, metal, portable	30.00	150.00
	5	do	Platform, 48 by 60 inches, steel legs.	25.00	125.00
	1	do	Scale, small	60.00	60.00
	2	do	Truck, delivery	35.00	70.00
	1	do	Ladder, step, pantry	6.00	6.00
	1	do	Desk, office, wood	100.00	100.00
	1	do	Stool	25.00	25.00
	1	do	Chair, swivel, no arms	25.00	25.00
	1	do	File, 4-drawer	75.00	75.00
			Total		636.00
B008 Building supply storage	1	do	Ladder, platform, with railing, 16 foot.	75.00	75.00
	1	do	Platform, 14 foot, portable	14.00	14.00
	1	do	Can, 20-gallon, galvanized	10.00	10.00
	1	do	Dolly, round	20.00	20.00
	1	do	Ladder, step, 16 foot	16.00	16.00
	2	do	Ladder, step, 8 foot	8.00	16.00
	1	do	Platform, window	50.00	50.00
			Total		201.00
B008a Blanket storage	1	do	Dispenser, moth repellent compound.	4.00	4.00
			Total		4.00
B008b Trunk storage	1	do	Truck, 2-wheel	20.00	20.00
			Total		20.00
B009 Electrical equipment room.			No equipment required		
B009a Transfer vault			do		
B010 Corridor			do		
B011 Corridor			do		
B011a Elevator machine room.			do		

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
B012 Furniture storage	1	Each	Work bench	$100.00	$100.00
	1	do	Chair	15.00	15.00
	1	do	Drill, electric	25.00	25.00
	1	do	Truck, furniture	20.00	20.00
	2	do	Dolly, piano	50.00	100.00
	8	do	Dolly, furniture	3.00	24.00
	1	do	Easel, glass door	10.00	10.00
			Total		294.00
B013 Utility and fan room			No equipment required		
B013a Clothes chute	1	Each	Cart, laundry	75.00	75.00
			Total		75.00
B013b Well pit			No equipment required		
B014 Maintenance supervisor's office.	1	Each	Cabinet, filing, 4 drawer	75.00	75.00
	1	do	Desk, office	100.00	100.00
	1	do	Lamp, desk	5.00	5.00
	1	do	Chair, office, swivel	25.00	25.00
	1	do	Sign kit	100.00	100.00
			Total		305.00
B015 Corridor	1	do	Urn, sand	12.00	12.00
			Total		12.00
B016 Corridor			No equipment required		
B017 Men employees' toilet	2	Each	Receptacle, soiled towels	25.00	50.00
	1	do	Urn, sand	12.00	12.00
			Total		62.00
B018 Men employees' locker and lounge.			No equipment required		
B019 Paper and pamphlet storage.			do		
B020 Printing room			do		
B021 Men employees' locker			do		
B022 Men employees toilet	2	Each	Receptacle, soiled towels	25.00	50.00
	1	do	Urn, sand	12.00	12.00
			Total		62.00
B023 Men employees lounge	1	do	Picture	10.00	10.00
	1	do	Bed, day	60.00	60.00
	1	do	Lamp, table	7.00	7.00
	1	do	Sofa, 2-seat	100.00	100.00
	4	do	Chair, lounge	50.00	200.00
	1	do	Lamp, floor	15.00	15.00
	1	do	Table	10.00	10.00
	4	do	Smoking stand	5.00	20.00
			Total		422.00
B024 Housekeeping equipment.	2	do	Table, work	50.00	100.00
	1	do	Marking machine, linen	30.00	30.00
	1	do	Ladder, step, pantry type	6.00	6.00
	1	do	Sewing machine	150.00	150.00
	1	do	Desk	100.00	100.00
	1	do	Chair, swivel	30.00	30.00
	1	do	Cabinet, filing	75.00	75.00
	2	do	Vacuum, portable	100.00	200.00
	4	do	Sweeper, carpet	20.00	80.00
			Total		771.00
B025 Women employees' locker.			No equipment required		
B026 Women employees' lounge.	1	Each	Bed, day	60.00	60.00
	1	do	Table	10.00	10.00
	1	do	Sofa, 2 seat	100.00	100.00
	4	do	Chair, lounge	50.00	200.00
	2	do	Lamp, floor	15.00	30.00
	1	do	Lamp, table	7.00	7.00
	1	do	Picture	10.00	10.00
	4	do	Smoking stand	5.00	20.00
			Total		437.00

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
B027 Women employees' toilet.	1	Each	Receptical, soiled towels	$25.00	$25.00
	1	do	Urn, sand	12.00	12.00
	2	do	Disposal, napkin	15.00	30.00
	1	do	Vending machine	20.00	20.00
	1	do	Dispenser, napkin bag	5.00	5.00
			Total		92.00
B028 Corridor	2	do	Urn, sand	12.00	24.00
					24.00
B029 Corridor			No equipment required		
B030 Maintenance and hospital storage.			do		
B031 Bookstore storage	2	Each	Ladder, step, 3-foot	(1)	(1)
	3	do	Bench, work		
	1	do	Desk, office		
	2	do	Marking machine, book		
	1	do	Chair, swivel		
	1	do	Truck, two wheel		
	1	do	File, 4 drawer		
	3	do	Chair, straight		
	1	do	Twin tank outfit, with castors		
	1	do	Scale, P. P		
	2	do	Truck, book		
	2	do	Truck, 4 wheel		
	1	do	Scale, platform		
	1	do	Marking machine, jewelry		
	1	do	Can, refuse		
B032 Employees' dining room (commuter lunch area).	2	do	Table, folding	50.00	100.00
	20	do	Chair, folding	28.00	560.00
			Total		660.00
A001 Alcove			Nonparticipating		
A002 Storage			do		
A003 Women's shower room			do		
A004 Swimming pool			do		
A005 Women's dressing room			do		
A006 Storage wire basket			do		
A007 Control room			do		
A008 Men's shower and dressing room.			do		
A009 Stairway			do		
001 Dry stores			No equipment required		
002 Corridor			do		
003 Receiving room office	1	Each	Desk, single pedestral	100.00	100.00
	1	do	Cabinet, filing, 4-drawer	75.00	75.00
	1	do	Cabinet, storage, 2-drawer	50.00	50.00
	1	do	Chair, swivel	30.00	30.00
	1	do	Chair, side	15.00	15.00
	1	do	Lamp, desk	7.00	7.00
	1	do	Receiving machine	25.00	25.00
			Total		302.00
004 Receiving room	1	do	Truck, 2 wheel	20.00	20.00
	2	do	Dolly, frame	20.00	40.00
	2	do	Dolly, round	20.00	40.00
	4	do	Truck, platform, 4 wheel	30.00	120.00
			Total		220.00
005 Loading dock	3	do	Recipients, tin can	10.00	30.00
	8	do	Recipients, paper	10.00	80.00
			Total		110.00
006 Trash and can wash	10	do	Can, galvanized, 20 gallon	10.00	100.00
	5	do	Dolly bases, round	20.00	100.00
			Total		200.00
007 Garbage refrigeration			No equipment required		
008 Bakery	1	Each	Baker's dough scale, 8 pound, ¼ ounce.	60.00	60.00

[1] To be furnished from other funds.

GROUP II EQUIPMENT—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
009 Bakery stores	1	Each	Ladder, step, pantry-type	$6.00	$6.00
	1	do	Truck, with shelves for delivering.	50.00	50.00
	1	do	Scale, utility, 25 pounds by 1 ounce, glass dial cover.	60.00	60.00
			Total		116.00
009a Ice cream mix storage	5	do	Container, dry storage	5.00	25.00
	1	do	Truck, for delivering	50.00	50.00
	1	do	Ladder, pantry-type, step	6.00	6.00
	1	do	Scale, utility, 25 pounds by 1 ounce, glass dial.	60.00	60.00
			Total		141.00
010 Ice cream preparation	36	do	Ice cream can, welded seam, without cover, low, 5 gallons, 9 inches by 18½ inches outside diameter.	4.00	144.00
	1	do	Receptacle, white, waste, galvanized liner, self-closing sanitary top, 16 inches by 16 inches by 37 inches.	10.00	10.00
	1	do	Truck, ice cream can, 54 inches by 34½ inches by 37¼ inches, platform size, 30½ inches by 50 inches.	214.00	214.00
			Total		368.00
011 Ice cream refrigeration			No equipment required		
011a Ice cream refrigeration			do		
012 Bakery refrigeration			do		
013 Corridor			do		
014 Janitor's closet	1	Each	Truck, janitor's, twin tanks	40.00	40.00
	1	do	Atomizer, insecticide	75.00	75.00
			Total		115.00
015 Vegetable preparation	3	do	Chair, straight	10.00	30.00
	1	do	Scale, platform, 1,000 pound capacity, ½ pound by 100 pound beam.	75.00	75.00
	1	do	Truck, vegetable, 28½-inch by 60-inch by 37-inch.	35.00	35.00
	6	do	Lug pan, utility, 26-inch by 15½-inch.	20.00	120.00
			Total		260.00
016 Refrigeration (vegetable)			No equipment required		
017 Frozen food			do		
018 Dietitian's office	1	Each	Desk, double pedestal	150.00	150.00
	1	do	Desk, single pedestal	150.00	150.00
	2	do	Cabinet, file, 4 drawer	75.00	150.00
	1	do	Cabinet, storage, 2 door	50.00	50.00
	2	do	Chair, swivel	30.00	60.00
	2	do	Chair, side	15.00	30.00
	1	do	Adding machine	290.00	290.00
	1	do	Costumer	15.00	15.00
	1	do	Stand, typewriter	30.00	30.00
			Total		925.00
019 Corridor			No equipment required		
019a Dish room			Matting, floor, 86 feet by 36 inches wide.		200.00
			Total		200.00
020 Meat preparation	1	Each	Scale, platform, 1,000-pound capacity, 1- by 100-pound beam.	100.00	100.00
	2	do	Scale, portion, 32-ounce, ⅛-ounce, glass dial cover.	75.00	150.00
	36	do	Utility lug pan, meat, 26 by 15½ by 18 inches, seamless, stain-resistant.	20.00	720.00

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

	Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
020	Meat preparation—Con.	1	Each	Tenderizer	$300.00	$300.00
		1	do	Meat chopper	550.00	550.00
		1	do	Meat saw, power	600.00	600.00
		1	do	Angle feed slicer	425.00	425.00
		1	do	Meat truck, 2 deck, O. D. 45½ by 23½ by 35 inches.	60.00	60.00
				Total		2,905.00
021	Refrigeration (fish)			No equipment required		
022	Refrigeration (poultry)			do		
023	Refrigeration (meat)			do		
024	Dietitian lounge	1	Each	Bed, day	60.00	60.00
		4	do	Chair, lounge	50.00	200.00
		1	do	Table, coffee	20.00	20.00
		2	do	Lamp, floor	15.00	30.00
		1	do	Picture	10.00	10.00
		4	do	Stand, ash	5.00	20.00
				Total		340.00
024a	Dietitian toilet	1	do	Receptacle, soiled towels	25.00	25.00
		1	do	Disposal, napkin	15.00	15.00
		1	do	Vending machine	20.00	20.00
		1	do	Dispenser, napkin bag	5.00	5.00
				Total		65.00
024b	Closet			No equipment required		
025	Refrigeration (dairy)			do		
026	Corridor			do		
027	Women employee, toilet	1	Each	Receptacle, soiled towels	25.00	25.00
		1	do	Urn, sand	12.00	12.00
		2	do	Disposal, napkin	15.00	30.00
		1	do	Vending machine	20.00	20.00
		1	do	Dispenser, napkin bag	5.00	5.00
				Total		92.00
028	Men employee, toilet	1	do	Receptacle, soiled towels	25.00	25.00
		1	do	Urn, sand	12.00	12.00
				Total		37.00
029	Ice room	1	do	Chest, ice, portable	75.00	75.00
				Total		75.00
030	Coat room	3	do	Rack, coat and hat, 40 hangers	50.00	150.00
				Total		150.00
	Vestibule	2	do	Urn, sand	12.00	24.00
				Total		24.00
032	Telephone (public)			No equipment required		
034	Display room			do		
035	Corridor	1	Each	Urn, sand	12.00	12.00
				Total		12.00
038	Corridor	2	do	Urn, sand	12.00	24.00
				Total		24.00
039	Corridor	2	do	Urn, sand	12.00	24.00
				Total		24.00
040	Storage			No equipment required		
041	Women's toilet	2	Each	Receptacle, soiled towels	25.00	50.00
		1	do	Urn, sand	12.00	12.00
		3	do	Disposal, napkin	15.00	45.00
		1	do	Vending, machine	20.00	20.00
		1	do	Dispenser, napkin bag	5.00	5.00
				Total		132.00

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
042 Women's lounge	6	Each	Ash stand	$5.00	$30.00
	1	do	Table, coffee	50.00	50.00
	1	do	Sofa, 2-seat	150.00	150.00
	4	do	Chair, lounge	75.00	300.00
	2	do	Table, end	20.00	40.00
	1	do	Lamp, floor	15.00	15.00
	2	do	Lamp, table	10.00	20.00
			Total		605.00
043 Corridor			No equipment required.		
044 Beauty shop	1	Each	Register, cash	450.00	450.00
	1	do	Rack, hat and coat	30.00	30.00
	1	do	Table, manicure	35.00	35.00
	1	do	Lamp, manicure	7.50	7.50
	1	do	Desk, appointment	172.00	172.00
	1	do	Vanity, comb-out	165.00	165.00
	3	do	Chair, pull-up	75.00	225.00
	1	do	Table, low	114.40	114.40
	1	do	Table, lamp, 18 inches by 18 inches by 24 inches.	54.60	54.60
	2	do	Stand, ash	8.00	16.00
	1	do	Lamp, table, with shade	52.00	52.00
			Total		1,321.50
	1	do	Register, cash	450.00	450.00
	4	do	Stand, ash	8.00	32.00
045 Barber shop	2	do	Costumer	15.00	30.00
	1	do	Stand, cash	108.00	108.00
	6	do	Chair, pull-up	75.00	450.00
	1	do	Seat, child's	30.00	30.00
			Total		1,100.00
046 Fan room			No equipment required.		
047 Corridor			Do.		
048 Men's toilet	1	Each	Receptacle, soiled towel	25.00	25.00
	1	do	Urn, sand	12.00	12.00
					37.00
049 Fan room			No equipment required.		
050 Soiled linen room and clothes chute.			Do.		
S1, S2, S4 Stairs					
A101 Snack bar	1	Each	Board menu, glass door	35.00	35.00
	1	do	Register, cash	1,202.98	1,202.98
			Total		1,237.98
A102 Dish washing			Matting, floor, 12 feet by 5 feet.	75.00	75.00
A102a Storage			No equipment required.		
101 Cafeteria	23	Each	Table, 24 inches by 30 inches, formica top.	33.18	763.14
	78	do	Table, 36 inches by 36 inches, formica top.	47.02	3,667.56
	14	do	Table, 30 inches by 48 inches, formica top.	52.05	728.70
	1	do	Table, 54 inch diameter, formica top.	116.58	116.58
	2	do	Table, 72 inch diameter, formica top.	170.64	341.28
	1	do	Table, 96 inch diameter, formica top.	357.92	357.92
	5	do	Chair, side	38.87	194.35
	4	do	Smoker, 4½ inch receptacle	8.00	32.00
	4	do	Chair, lounge	93.28	373.12
	1	do	Table, 24 inches by 24 inches, formica top.	50.05	50.05
	1	do	Box, display, driftwood	144.30	144.30
	446	do	Chair, dining, slip seat	11.70	5,218.20
	3	do	Box, plant, wood, 8 feet 6 inches by 10 feet 6 inches by 38 inches high with 12-inch deep galvanized container, boxes to be double faced.	279.00	837.00

GROUP II EQUIPMENT—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
101 Cafeteria—Continued	2	Each	Box, plant, wood, 8 feet 9 inches by 1 foot 6 inches by 38 inches high, with 12-inch deep galvanized container single faced, plain back.	$283.40	$566.80
			Total		13,391.00
102 Corridor	2	do	Urn, sand	12.00	24.00
	4	do	Post, guide, with hook	8.00	32.00
	2	do	Rope, guide, covered	5.00	10.00
	3	do	Sofa, right, curved	254.80	764.40
	3	do	Sofa, left, curved	254.80	764.40
	6	do	Box, plant, room divider, curved, with copper containers, front finished in flax.	560.20	3,361.20
	3	do	Table, 18 inches by 30 inches by 22 inches, formica top.	60.00	180.00
			Total		5,136.00
102a Vestibule	2	do	Urn, sand	12.00	24.00
103 Lounge	3	do	Table, cocktail, ebony, formica top, 60 by 24 by 17 inch.	174.85	524.55
	5	do	Table, tear drop, formica top, 24 by 24 by 24 inch.	57.20	286.00
	8	do	Table, end, formica top, 24 by 24 by 24 inch.	54.60	436.80
	4	do	Table, cocktail, formica top, 60 by 72 by 16 inches high.	109.20	436.80
	10	do	Chair, easy	94.90	949.00
	6	do	Table, low, formica top, 39 inch diameter by 17 inches high.	114.40	686.40
	4	do	Chair, easy	112.32	449.28
	12	do	Chair, card table	44.85	538.20
	3	do	Table, card, checkerboard, formica, with ashtrays.	140.40	421.20
	4	do	Chair, wing back, 36 inches high.	138.78	555.12
	4	do	Chair, easy	162.50	650.00
	10	do	Chair, pull-up	94.25	942.50
	3	do	Sofa, crescent shape, back 31 inches high.	273.00	819.00
	4	do	Chair, desk	44.85	179.40
	3	do	Settee, 6 feet long	299.00	897.00
	12	do	Chair, pull-up	76.38	916.56
	3	do	Chair, large tub	105.30	315.90
	4	do	Seat, love, 56 inches long	292.50	1,170.00
	2	do	do	290.55	581.10
	2	do	Sofa, left sectional, 48 inches long.	219.05	438.10
	2	do	Sofa, right sectional, 48 inches long.	219.05	438.10
	5	do	Sofa, left sectional, 72 inches long.	254.80	1,274.00
	5	do	Sofa, right sectional, 72 inches long.	254.80	1,274.00
	3	do	Lamp table, 18 by 18 by 18 inches, formica.	54.60	163.80
	1	do	Cabinet, magazine, 48 inches long, open shelves, formica top.	188.50	188.50
	2	do	Desk, double writing, 40 by 36 by 30 inches, formica top.	143.00	286.00
	1	do	Radio, combination and record player.	355.00	355.00
	22	do	Stand, smoking, with 4½-inch receptacle.	8.00	176.00
	3	do	Jar, sand, round tapered, loose grill.	12.65	37.95
	6	do	Chair, easy	104.65	627.90
	3	do	Lamp, table, 4 candle	52.00	156.00
	7	do	Lamp, table, hinge	58.50	409.50
	5	do	Lamp, table, wrought iron, hand woven shade.	52.00	260.00
	5	do	Lamp, table, wrought iron, grass cloth shade.	35.75	178.75
	1	do	Lamp, floor	55.25	55.25

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
103 Lounge—Continued	2	Each	Lamp, table, desk, wrought iron.	$29.25	$58.50
	4	do	Lamp, table, with gold leaf crackle shade.	81.25	325.00
			Total		18,457.16
104 Manager's office	1	do	Desk, executive, 40 by 72	208.00	208.00
	1	do	Chair, swivel	140.00	140.00
	2	do	Chair, pull-up	97.00	194.00
	1	do	Cabinet, file, 4 drawer	75.00	75.00
	1	do	Cabinet, key, file	75.00	75.00
	1	do	Costumer	15.00	15.00
	1	do	Table, end	42.90	42.90
	1	do	Lamp, end table	23.40	23.40
	1	do	Dictaphone	350.00	350.00
	1	do	Table, work, 36 by 24 inches	100.00	100.00
	1	do	Lamp, work	22.10	22.10
	1	do	Settee, 54 inches long	295.00	295.00
	2	do	Smoker	8.00	16.00
			Total		1,556.40
104a Secretary's office	1	do	Desk, typing	204.10	204.10
	2	do	Chair, side	55.12	110.24
	1	do	Chair, posture	49.63	49.63
	1	do	Costumer	15.00	15.00
	2	do	Cabinet, file, 4 drawer	75.00	150.00
	1	do	Cabinet, file, 2 drawer	50.00	50.00
	1	do	Cabinet, storage	50.00	50.00
	1	do	Transcribing machine	250.00	250.00
	1	do	Fan, floor	30.00	30.00
	1	do	Typewriter	150.00	150.00
	1	do	Shaver, dictaphone	100.00	100.00
	1	do	Table, work	110.00	110.00
	1	do	Smoker	8.00	8.00
			Total		1,276.97
104b Assistant manager's office	1	do	Desk, office, double pedestal, 60 by 34.	178.10	178.10
	1	do	Chair, swivel	140.00	140.00
	2	do	Chair, side	55.12	110.24
	1	do	Cabinet, file, 4 drawer	75.00	75.00
	1	do	Cabinet, storage	50.00	50.00
	1	do	Costumer	15.00	15.00
	1	do	Dictaphone	350.00	350.00
	1	do	Typewriter	150.00	150.00
	1	do	Stand, typewriter	20.00	20.00
	1	do	Bookcase	25.00	25.00
	1	do	Table, work	50.00	50.00
	1	do	Smoker	8.00	8.00
			Total		1,171.34
104c Checkroom	4	do	Rack, coat and hat, 40 hangers each.	50.00	200.00
105 Conference	1	do	Table, conference, 42 inches by 80 inches.	195.00	195.00
	1	do	Costumer	15.00	15.00
	8	do	Chair, conference table	64.35	514.80
	1	do	Lectern, table	10.00	10.00
			Total		734.80
106 Lobby	1	do	Easel, glass door	25.00	25.00
	4	do	Urn, sand	12.00	48.00
	1	do	Cabinet, 6 feet long by 31 inches high, with 4 inch recess base, false doors covered with Tahiti Strawtex.	335.40	335.40
	4	do	Chair, wing, leather upholstery.	278.00	1,112.00
	1	do	Sofa, 78 inches long, leather upholstery.	435.00	435.00
	2	do	Chair, armless, leather upholstery.	127.40	254.80
	2	do	Chair, tub, leather upholstery	143.00	286.00
	2	do	Table, end, formica top, built-in smoker.	52.00	104.00

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
106 Lobby—Continued	3	Each	Stand, smoking, 4½-inch receptacle.	$8.00	$24.00
	2	do	Lamp, end table	97.50	195.00
	2	do	Lamp, Credensa, hand woven shade.	55.25	110.50
	1	do	Bench, 5 feet long by 21 inches wide.	195.00	195.00
			Total		3,124.70
106a Front office	1	do	Chair, posture	30.00	30.00
	1	do	Rack, P. B. X., information	10.00	10.00
	2	do	Pen, registration	25.00	50.00
	1	do	Timestamp	90.00	90.00
	1	do	Cash register	1,850.00	1,850.00
	1	do	Machine, adding	290.00	290.00
	1	do	Name plate	25.00	25.00
	2	do	Machine, postage	90.00	180.00
	1	do	Typewriter	150.00	150.00
	2	do	Holder, registration card	5.00	10.00
			Total		2,685.00
107 Telephone booth			No equipment required		
109 Vestibule			do		
110 Telephone booth			do		
111 Closet	1	Each	Truck, mop, small, with wringer.	40.00	40.00
112 Women's toilet	2	do	Receptacle, paper	25.00	50.00
	1	do	Urn, sand	12.00	12.00
	4	do	Disposal, napkin	15.00	60.00
	1	do	Vending machine	20.00	20.00
	1	do	Dispenser, napkin bag	5.00	5.00
			Total		147.00
113 Men's toilet	2	do	Receptacle, wastepaper	25.00	50.00
	1	do	Urn, sand	12.00	12.00
			Total		62.00
114 Vestibule			No equipment required		
115 Gift shop	4	Each	Register, cash	1,944.68	7,778.72
116 Corridor	2	do	Urn, sand	12.00	24.00
116a Vestibule			No equipment required		
117 Cook's refrigeration			do		
118 Daily stores			do		
119 Kitchen	1	Each	Scale, utility, 24 inches by 1 ounce, glass dial cover.	60.00	60.00
120 Salad refrigeration	1	do	Truck, delivering	50.00	50.00
121 Salad preparation	1	do	Mixer, 10 quart	300.00	300.00
122 Dietitian's office	1	do	Desk, double pedestal	150.00	150.00
	2	do	Chair, swivel	30.00	60.00
	1	do	Desk, single pedestal	150.00	150.00
	1	do	Chair, side	15.00	15.00
	1	do	File, 4 drawer	75.00	75.00
	1	do	Stand, typewriter, portable	50.00	50.00
	1	do	Costumer	15.00	15.00
			Total		515.00
123 Janitor's closet	1	do	Can, waste	10.00	10.00
	1	do	Truck, janitor	40.00	40.00
	1	do	Floor maintenance machine	250.00	250.00
	1	do	Floor scrubber machine	1,350.00	1,350.00
			Total		1,650.00
124 Corridor			No equipment required		
125 Cafeteria serving area	2	Each	Checking machine	1,200.00	2,400.00
	2	do	Checking desk and stool	150.00	300.00
	1	do	Menu board	50.00	50.00
	2	do	Changemaker	335.00	670.00
			Total		3,420.00
AM101 Table storage			Nonparticipating		
AM102 Private dining room			do		
AM103 Corridor			do		

GROUP II EQUIPMENT—Continued

PROJECT No. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
M101 Housekeeper's room	1	Each	Truck, maids and linen	$40.00	$40.00
	1	do	Ladder, step, pantry type	6.00	6.00
			Total		46.00
M102 Private dining room	1	do	Lectern, table	5.00	5.00
	2	do	Table, folding, 36 by 72 inches, Masonite top.	31.65	63.30
	14	do	Chair, folding	28.08	393.12
			Total		461.42
M103 Private dining room	2	do	Table, folding, 36 by 96 inches, Masonite top.	37.05	74.10
	20	do	Chair, folding	28.08	561.60
			Total		635.70
M104 Private dining room	2	do	Table, folding, 36 by 96 inches, Masonite top.	37.05	74.10
	20	do	Chair, folding	28.08	561.60
			Total		635.70
M105 Private dining room	2	do	Table, folding, 36 by 96 inches, Masonite top.	37.05	74.10
	20	do	Chair, folding	28.08	561.60
			Total		635.70
M106 Corridor	8	do	Urn, sand	12.00	96.00
			Total		96.00
M107 Conference room	1	do	Blackboard	15.00	15.00
	1	do	Lectern, table	5.00	5.00
	2	do	Tables, folding, 36 by 72 inches, Masonite top.	31.65	63.30
	14	do	Chair, folding	28.08	393.12
			Total		476.42
M108 conference room	1	do	Blackboard	15.00	15.00
	1	do	Lectern, table	5.00	5.00
	2	do	Tables, folding, 36 x 72 inches, Masonite top.	31.65	63.30
	14	do	Chairs, folding	28.08	393.12
			Total		476.42
M109 trustees dining room	1	do	Table, dining, with leaves	141.05	141.05
	12	do	Chairs, side, dining	36.34	436.08
	2	do	Chairs, arm, dining	49.34	98.68
	1	do	Buffet	154.70	154.70
	1	do	Cabinet, china	175.50	175.50
	1	do	Chair, wing	204.10	204.10
	1	do	Lamp, 5 candle	55.25	55.25
			Total		1,265.36
M110 trustees board room	1	do	Table, trustee board	1,202.50	1,202.50
	14	do	Chairs, arm, leather	104.00	1,456.00
	1	do	Chair, wing	159.25	159.25
	1	do	Credenza, 80 inches long	513.50	513.50
	1	do	Stand, smoking	8.00	8.00
	1	do	Jar, sand, round, tapered, with loose grill.	12.65	12.65
	1	do	Blackboard	15.00	15.00
	1	do	Lectern, table	5.00	5.00
			Total		3,371.90
M111 men's toilet	1	do	Receptacle, soiled towels	25.00	25.00
	1	do	Urn, sand	12.00	12.00
			Total		37.00
M112 corridor			No equipment required		

GROUP II EQUIPMENT—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
M113 women's toilet	1	Each	Receptacle, soiled towel	$25.00	$25.00
	3	do	Disposal, napkin	15.00	45.00
	1	do	Urn, sand	12.00	12.00
	1	do	Vending machine	20.00	20.00
	1	do	Dispenser, napkin bag	5.00	5.00
			Total		107.00
M114 closet			No equipment required		
M115 and M116, business office	4	Each	Desk, office, double pedestal	150.00	600.00
	2	do	Desk, typewriter	150.00	300.00
	6	do	Chairs, swivel, posture	30.00	180.00
	2	do	Typewriter	150.00	300.00
	5	do	Chair, straight	15.00	75.00
	9	do	Cabinet, 4-drawer, file	75.00	675.00
	2	do	Cabinet, storage, 2-door	50.00	100.00
	1	do	Safe, fireproof	1,600.00	1,600.00
	1	do	Adding machine	290.00	290.00
	1	do	Calculator	650.00	650.00
	1	do	Duplicator machine	150.00	150.00
	2	do	Costumer	15.00	30.00
			Total		4,950.00
M117	1	do	Bed, lounge, 1 arm	179.32	179.32
	1	do	Chest desk, formica top, 48 by 20 by 30 inches.	83.20	83.20
	1	do	Mirror, 48 by 30 inches, beveled.	31.20	31.20
	1	do	Commode, 20 by 24 by 24 inches, 3 drawers.	82.55	82.55
	1	do	Easy chair	48.37	48.37
	5	do	Desk and dinette chairs	11.96	59.80
	1	do	Dinette table, extension, formica top, 30 by 46 by 60 inches.	58.76	58.76
	1	do	Coffee table, 24 by 24 by 17 inch.	50.05	50.05
	1	do	Server base, 38 by 18 by 32 inch.	78.00	78.00
	1	do	Server, hutch top	45.50	45.50
	1	do	Lamp, floor, satin brass	24.05	24.05
	1	do	Lamp, table, satin brass	17.88	17.88
	1	do	Lamp, desk, satin brass	21.45	21.45
			Total		780.13
M119	2	do	Sofas, 8 feet long	297.70	595.40
	1	do	Square 30-inch lamp table with formica top.	123.50	123.50
	1	do	Mirror, 6 feet long by 4 feet high, center divided, each section beveled ½-inch.	240.50	240.50
	4	do	Armless chair	58.50	234.00
	1	do	Table lamp, 50-inch	65.00	65.00
	1	do	Console table, 8 feet long by 24 inches wide by 32 inches high, ebony formica top.	292.50	292.50
	1	do	Settee, armless, 4 foot	208.00	208.00
	2	do	Console table lamps with base	55.25	110.50
	2	do	Floor lamps and brass tray, black rods.	42.90	85.80
	1	do	Smoking stand, 4½ inch receptacle.	8.00	8.00
	1	do	Sand jar, round, tapered	12.65	12.65
			Total		1,975.85
M120 Janitor's room	1	do	Can, trash	10.00	10.00
	1	do	Truck, mop, small with caster	40.00	40.00
	1	do	Machine, floor maintenance	250.00	250.00
			Total		300.00
M121 Store room	1	do	Ladder, step pantry type	6.00	6.00
	1	do	Truck, delivery	40.00	40.00
			Total		46.00

GROUP II EQUIPMENT—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
M122 Kitchen	1	Each	Conveyor, food	$250.00	$250.00
			Total		250.00
M122a Corridor			No equipment required		
M123 Women's toilet	1	Each	Receptacle, paper	25.00	25.00
	1	do	Disposal, napkin	15.00	15.00
	1	do	Vending machine	20.00	20.00
	1	do	Dispenser, napkin bag	5.00	5.00
			Total		65.00
M123a Janitor's room	1	do	Can, trash	10.00	10.00
	1	do	Pail, mop with casters and wringer.	40.00	40.00
			Total		50.00
M124 Dining room	17	do	Table, folding, 54-inch diameter masonite top.	48.95	832.15
	11	do	Table, folding, 30- by 72-inch masonite top.	28.40	312.40
	202	do	Chair, folding	28.08	5,672.16
			Total		6,816.71
M125 Storage (chair and table).	1	do	Jack	75.00	75.00
	5	do	Skid, chair	25.00	125.00
	4	do	Skid, table	25.00	100.00
			Total		300.00
M126 Storage linen			No equipment required		
M127 Corridor			do		
M128	3	Each	Rack, checking, hat and coat, 40 hangers.	50.00	150.00
			Total		150.00
M129 Corridor			No equipment required		
M135 Apartment	1	Each	Sofa, hide-a-bed, 73 by 22 inches.	250.00	250.00
	1	do	Coffee table, 24 by 24 by 17 inches high.	50.05	50.05
	1	do	Desk, student, 36 by 20 by 30 inches.	68.90	68.90
	2	do	Easy chairs	48.37	96.74
	6	do	Desk and dinette chair	11.96	71.76
	2	do	Commodes, 20 by 24 by 24 inches high.	82.55	165.10
	1	do	Chest desk, 48 by 30 inches high by 20 inches, formica top.	83.20	83.20
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	2	do	Beds, 3 feet 3 inches	43.55	87.10
	2	do	Mattress, innerspring, 3 feet 3 inches.	27.95	55.90
	2	do	3 feet 3 inches box spring	30.36	60.72
	1	do	Commode, 18 by 16 by 28 inches high.	37.70	37.70
	1	do	Dinette table, extension, 30 by 35 by 60 inches.	58.76	58.76
	1	do	Server, 38 by 18 by 32 inches, serving board.	78.00	78.00
	1	do	Server, hutch top, no glass	45.50	45.50
	1	do	Double dresser, 52 by 19 by 47 inches, formica top.	129.35	129.35
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	1	do	Lamp, night table	21.45	21.45
	1	do	Lamp, vanity	13.98	13.98
	1	do	Lamp, desk	21.45	21.45
	2	do	Lamps, table	17.88	35.76
			Total		1,493.82
M136 Apartment	1	do	Sofa, hide-a-bed, double, with Beautyrest mattress, 73 by 22.	250.00	250.00
	1	do	Coffee table, 24 by 24 by 17 inches high.	50.05	50.05

GROUP II EQUIPMENT—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
M136 Apartment—Con.	1	Each	Desk, 36 by 20 by 30 inches, student, formica top.	$68.90	$68.90
	2	do	Easy chairs	48.37	96.74
	6	do	Desk and dinette chairs	11.96	71.76
	1	do	Commode, 20 by 24 by 24 inches high.	82.55	82.55
	1	do	Double dresser, formica top	129.35	129.35
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	2	do	Beds, 3 feet 3 inches	43.55	87.10
	2	do	3 feet 3 inch mattress, innerspring.	27.95	55.90
	2	do	3 feet 3 inch box spring	30.36	60.72
	1	do	Chest desk, formica top	83.20	83.20
	1	do	Mirror	31.20	31.20
	1	do	Dinnette extension table, 30 by 46 by 60 inches formica top.	58.76	58.76
	1	do	Server base	78.00	78.00
	1	do	Server, hutch top	45.50	45.50
	1	do	Lamp, desk	21.45	21.45
	1	do	Lamp, dresser	13.98	13.98
	2	do	Lamp, vanity	13.98	27.96
	1	do	Lamp, table	17.88	17.88
			Total		1,362.20
M137 Apartment	1	do	Sofa, hide-a-bed, double with Beautyrest mattress, 73 by by 22.	250.00	250.00
	1	do	Coffee table, 24 by 24 by 17 inches high.	50.05	50.05
	1	do	Desk, student, 36 by 20 by 30 inches, formica top.	68.90	68.90
	2	do	Easy chairs	48.37	96.74
	6	do	Desk and dinette chairs	11.96	71.76
	1	do	Commode, 20 by 24 by 24 inches.	82.55	82.55
	1	do	Double dresser, 52 by 19 by 47 inches, formica top.	129.35	129.35
	1	do	Mirror	31.20	31.20
	2	do	Beds, 3 feet 3 inches	43.55	87.10
	2	do	3 feet 3 inch mattress	27.95	55.90
	2	do	3 feet 3 inch box spring	30.36	60.72
	1	do	Chest desk, 48 by 20 by 30 inches high, formica top.	83.20	83.20
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	1	do	Dinette extension table, 30 by 46 by 60 inches, formica top.	58.76	58.76
	1	do	Server base, 36 by 18 by 32 inches.	78.00	78.00
	1	do	Server, hutch top	45.50	45.50
	1	do	Lamp, desk	21.45	21.45
	1	do	Lamp, dresser	13.98	13.98
	2	do	Lamp, vanity	13.98	27.96
	2	do	Lamp, table	17.88	35.76
			Total		1,380.08
M138 Apartment	1	do	Sofa, hide-a-bed, double with Beautyrest mattress, 73 by 22 inches.	250.00	250.00
	1	do	Coffee table, 24 by 24 by 17 inches high.	50.05	50.05
	1	do	Desk, 36 by 20 by 30 inches, student, formica top.	68.90	68.90
	2	do	Easy chairs	48.37	96.74
	6	do	Desk and dinette chairs	11.96	71.76
	1	do	Commode, 20 by 24 by 24 inches high.	82.55	82.55
	1	do	Double dresser, 52 by 19 by 47, formica top.	129.35	129.35
M139 Apartment	1	do	Mirror, 48 by 30 inches	31.20	31.20
	2	do	Beds, 3 feet 3 inches	43.55	87.10
	2	do	3 foot 3 inch mattress, innerspring.	27.95	55.90
	2	do	3 foot 3 inch box spring	30.36	60.72
	1	do	Chest desk, formica top	83.20	83.20
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	1	do	Dinette extension table, 30 by 46 by 60 inches, formica top.	58.76	58.76

GROUP II EQUIPMENT—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unitcost	Total cost
M138 Apartment—Continued	1	Each	Server base, 38 by 18 by 32 inches.	$78.00	$78.00
	1	do	Server, hutch top	45.50	45.50
	1	do	Lamp, desk	21.45	21.45
	1	do	Lamp, dresser	13.98	13.98
	2	do	Lamp, vanity	13.98	27.96
	1	do	Lamp, table	17.88	17.88
			Total		1,362.20
M139 Apartment	1	do	Sofa, hide-a-bed, double, with Beautyrest mattress, 73 by 22.	250.00	250.00
	1	do	Coffee table, 24 by 24 by 17 inches high.	50.05	50.05
	1	do	Desk, 36 by 20 by 30 inches, formica top.	68.90	68.90
	2	do	Easy chairs	48.37	96.74
	6	do	Desk and dinette chairs	11.96	71.76
	1	do	Commode, 20 by 24 by 24 inches.	82.55	82.55
	1	do	Chest-desk, 48 by 20 by 30 inches high, formica top.	83.20	83.20
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	2	do	Beds, 3 feet 3 inches	43.55	87.10
	2	do	Mattresses, 3 feet 3 inches	27.95	55.90
	2	do	Springs, 3 feet 3 inches	30.36	60.72
	1	do	Commode, 18 by 16 by 28 inches.	37.70	37.70
	1	do	Dinette table, 30 by 46 by 60 inches, formica top.	58.76	58.76
	1	do	Server base, 38 by 18 by 32 inches high.	78.00	78.00
	1	do	Server, hutch top	45.50	45.50
	1	do	Double dresser, 52 by 19 by 47 inches, formica top.	129.35	129.35
	1	do	Mirror, 48 by 30 inches	31.20	31.20
	1	do	Lamp, night table	21.45	21.45
	1	do	Lamp, dresser	13.98	13.98
	1	do	Lamp, vanity	13.98	13.98
	1	do	Lamp, desk	21.45	21.45
	1	do	Lamp, table	17.88	17.88
	1	do	Lamp, floor	24.05	24.05
			Total		1,431.42
M140 Terrace	2	do	Chair, deck	20.00	40.00
M141 Terrace	2	do	do	20.00	40.00
M142 Terrace	2	do	do	20.00	40.00
M143 Terrace	2	do	do	20.00	40.00
M144 Terrace	2	do	do	20.00	40.00
Second floor			Nonparticipating		
Third floor			do		
Fourth floor			do		
Fifth floor			do		

GROUP III EQUIPMENT

Administration department	30	Each	Basket, wastepaper, metal	$3.00	$90.00
	1	do	Bell, call, page	5.00	5.00
	24	do	Binder, looseleaf, 3 ring, small, 8½ by 11 inches.	2.00	48.00
	12	do	Binder, looseleaf, 3 ring, large, 8½ by 11 inches.	3.00	36.00
			Books:		
	1	do	The Hotel Lease, Fred W. Eckert.	5.00	5.00
	1	do	Hotel Management, Principles and Practices of, Lucius M. Boomer.	4.00	4.00
	1	do	Hotel Front Office Management, Francis F. Hamilton.	5.00	5.00
	1	do	Front Office Psychology, H. V. Heldenbrand.	2.00	2.00

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
			Books—Continued		
Administration department—Continued	1	Each	Front Office and Floor Clerk Manual, Waldorf Astoria, Manual I.	$4.00	$4.00
	1	do	Mechanical Communications and Uniformed Service Manual, Waldorf-Astoria, vol. II.	4.00	4.00
	1	do	Personnel Management in Hotels and Restaurants, Donald E. Lundberg.	4.25	4.25
	1	do	Profits Through Promotion, C. D. Coffman.	5.00	5.00
	1	do	Hotel Statler, Washington, D. C.	2.00	2.00
	1	do	Uniform System of Accounts for Hotels (A. H. A.).	2.50	2.50
	1	do	Hotel Accounting, Horwath and Toth.	7.00	7.00
	1	do	Expense and Payroll Dictionary, Horwath and Horwath.	1.50	1.50
	1	do	Adminstrative Housekeeping, LaBelle and Barton.	5.50	5.50
	1	do	Housekeeping Department and Building Operations and Maintenance, Waldorf-Astoria Manual IV.	4.00	4.00
	1	do	Housekeepers Guide to Selecting and Training Employees, Dahl & Woolley.	1.29	1.29
	1	do	Bedding Manual for Professionals, Dahl.	1.29	1.29
	1	do	200 Ways to Reduce Engineering and Maintenance Costs, Brent, Dawis, Mosher & Peterson.	1.29	1.29
	6	do	Dictionary, Webster's Collegiate, Merriam-Webster, No. 11.	10.00	60.00
	1	do	Hotel Red Book Directory (A. H. A.).	5.00	5.00
	1	do	Hospitality, John McGovern.	1.00	1.00
	12	do	Clipboard	.50	6.00
	12	do	Covers, magazine	2.00	24.00
	1	do	Cutter, paper, 15-inch blade	15.00	15.00
	6	do	Dispenser, scotch tape	2.00	12.00
	1	do	Duster, counter	3.00	3.00
	2	do	Easel, glass door	10.00	20.00
	15	do	File, steel, 3 inches by 5 inches	4.00	60.00
	15	do	File, steel, 4 inches by 6 inches	4.00	60.00
	2	do	Flashlight	4.00	8.00
	6	do	Flag, American	7.50	45.00
	6	do	Flag, State of Indiana	7.50	45.00
	1	do	Hammer, carpenter's claw, 14-inch.	3.00	3.00
	12	do	Holder, desk blotter	1.25	15.00
	12	do	Ink wells	.75	9.00
	3	do	Kit, first-aid	10.00	30.00
	2	do	Machine, counting	5.00	10.00
	4	do	Machine, numbering, repeat movement.	5.00	20.00
	12	do	Pad, calendar	2.00	24.00
	12	do	Pad, desk	2.00	24.00
	3	do	Pliers, side cutting, flat nose, 8-inch.	3.00	9.00
	6	do	Pole and stand, for flags	10.00	60.00
	12	do	Punch, paper, hand	2.00	24.00
	1	do	Punch, paper, 3-hole	4.00	4.00
	4	do	Punch, ticket	3.00	12.00
	2	do	Rack, wrapping paper, 24-inch.	5.00	10.00
	2	do	Rack, string	2.00	4.00
	12	do	Ruler, 12-inch	.50	6.00
	12	do	Ruler, 18-inch	.75	9.00
	1	do	Screwdriver, common, normal duty, 3-inch blade.	2.00	2.00

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Administration department—Continued	2	Each	Scale, mail, first-class	$10.00	$20.00
	1	do	Scale, parcel-post, mail	20.00	20.00
	4	do	Sharpener, pencil	4.00	16.00
	12	do	Shears, office	2.00	24.00
	4	do	Stamp, dating	2.00	8.00
	6	do	Stamp, rubber	5.00	30.00
	12	do	Stapler	8.00	96.00
	12	do	Stapler remover	.50	6.00
	6	do	Spindle	.50	3.00
	2	do	Tape shooter	3.00	6.00
	3	do	Tape, measuring, 72 inches	2.00	6.00
	48	do	Tray, letter	2.50	120.00
	6	do	Water sets	15.00	90.00
	9	Fonts	Letter, changeable, cast-aluminum, 1 single-prong ½ inch.	5.50	49.50
	8	do	Letter, changeable, cast aluminum, 1 single-prong ¾ inch.	7.00	56.00
	5	do	Letter, changeable, cast-aluminum, 1 single-prong 1 inch.	8.00	40.00
			Total		1,468.12
Business office	2	Each	Basket, wastepaper, metal	3.00	6.00
	6	do	Binder, looseleaf, 3-ring, small, 8½ by 11 inches.	2.00	12.00
	6	do	Binder, looseleaf, 3-ring, large, 8½ by 11 inches.	3.00	18.00
	3	do	Can, waste	10.00	30.00
	6	do	Clipboard	.50	3.00
	2	do	Crowbar	4.00	8.00
	1	do	Dispenser, paper sacks	4.00	4.00
	2	do	File, 3- by 5-inch, steel	4.00	8.00
	2	do	File, 4- by 6-inch, steel	4.00	8.00
	2	do	Flashlight	4.00	8.00
	2	do	Hammer, carpenter's, claw, 14-inch.	3.00	6.00
	2	do	Hatchet, claw, cutting edge 4-inch.	4.00	8.00
	2	do	Pad, calendar	2.00	4.00
	2	do	Pad, desk	2.00	4.00
	2	do	Pliers, side-cutting, flat-nose, 8-inch.	3.00	6.00
	2	do	Punch, paper, hand	2.00	4.00
	2	do	Ruler, 12-inch	.50	1.00
	2	do	Screwdriver, common, normal-duty, 3-inch blade.	2.00	4.00
	2	do	Sharpener, pencil	4.00	8.00
	4	do	Spindle	.50	2.00
	2	do	Stamp, dating	5.00	10.00
	2	do	Staple, remover	.50	1.00
	2	do	Stapler	8.00	16.00
	4	do	Tray, letter	2.50	10.00
			Total		189.00
Food department	4	do	Basket, waste paper, steel	3.00	12.00
			Books:		
	1	do	The Epicurean by Charles Ramhofer, the Hotel Monthly Press.	10.00	10.00
	1	do	Palmer House Cook Book, E. E. Amist.	3.50	3.50
	1	do	Hotel St. Francis Cook Book, Victor Hirtzler.	5.00	5.00
	1	do	Betty Crocker's Picture Cook Book, deluxe edition.	3.95	3.95
	1	do	Encyclopedic Cook Book, Ruth Berolzheimer.	4.95	4.95
	1	do	Gold Cook Book, Louis P. DeGouy.	7.50	7.50
	1	do	Gourmet Cook Book, Gourmet Magazine.	10.00	10.00
	1	do	America's Table, Joseph D. Vehling.	10.00	10.00
	1	do	Institutional Food Buying, A. A. Frooman.	10.00	10.00
	1	do	How and Why of Cooking, Halliday & Noble.	3.75	3.75

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
			Books—Continued		
Food department—Continued	1	Each	Recipes of All Nations	$3.50	$3.50
	1	do	Wenzel's Menu Maker	27.50	27.50
	1	do	Chef's Guide to Quantity Cookery, J. H. Breland.	6.00	6.00
	1	do	Food for Fifty, Fowler & West.	4.50	4.50
	1	do	Group Feeding, Clifford Allen Kaiser.	7.00	7.00
	1	do	Quantity Cookery, Richards & Treat.	4.95	4.95
	1	do	Recipes and Menus for Fifty, Smith & Stoddard.	3.50	3.50
	1	do	Recipes for Serving 100	2.50	2.50
	1	do	U. S. Navy Cook Book	2.75	2.75
	1	do	The Soup Book, Louis P. DeGouy.	4.50	4.50
	1	do	Long Island Seafood Cook Book, Frederick-Joyce.	3.00	3.00
	1	do	Magic in Herbs, Leonie Desounes.	3.00	3.00
	1	do	Cook It in a Casserole, Florence Brobeck.	2.00	2.00
	1	do	Chafing Dish Cookery, Florence Brobeck.	3.00	3.00
	1	do	Serve It Buffet, Florence Brobeck.	2.50	2.50
	1	do	Edgewater Salad Book, Arnold Shircliffe.	5.00	5.00
	1	do	Hors d'oeuvre and Canapés	2.50	2.50
	1	ho	1,001 Sandwiches, Florence A. Cowles.	2.50	2.50
	1	do	Soda Fountain Recipes, L. P. DeGouy.	2.00	2.00
	1	do	Paul Richard's Pastry Book	3.00	3.00
	1	do	Hotel and Restaurant Dessert Book, K. Camille Den Dooven.	6.00	6.00
	1	do	Roll and Hot Breads Makeup, W. E. Broeg.	5.00	5.00
	1	do	The Pie Book, L. P. DeGouy	4.50	4.50
	1	do	Menu Translator, Duchamp and Jenning.	3.00	3.00
	1	do	Menu Making for Professionals, Dahl.	4.50	4.50
	1	do	Millburn Master Menu, Sumner G. Millburn.	9.50	9.50
	1	do	Training Restaurant Sales Personnel, U. S. Office of Education.	.75	.75
	1	do	Soda Fountain Management, J. O. Dahl.	3.00	3.00
	1	do	Food Service in Institutions, West and Wood.	5.00	5.00
	1	do	Wedding Etiquette Complete, Marguerite Bently.	4.00	4.00
	6	do	Binder, looseleaf, 3 ring, small 8½ by 11 inches.	2.00	12.00
	3	do	Binder, looseleaf, 3 ring, large 8½ by 11 inches.	3.00	9.00
	4	do	Broom, floor	3.00	12.00
	2	Dozen	Brush, scrub	7.50	15.00
	6	Each	Clip board	.50	3.00
	4	do	File, steel, 3 inches by 5 inches	4.00	16.00
	12	do	File, steel, 4 inches by 6 inches	4.00	48.00
	2	do	Flashlight	4.00	8.00
	12	do	Hanger, coat, wire	.10	1.20
	24	do	Hooks, meat	1.00	24.00
	8	Dozen	Jacket, waiter	34.00	272.00
	1	Each	Kit, first aid	10.00	10.00
	3	do	Pad, calendar	2.00	6.00
	3	do	Pad, desk	2.00	6.00
	2	do	Punch, paper, hand	2.00	4.00
	2	do	Rack, string	2.00	4.00
	2	do	Rack, wrapping paper, 24	4.00	8.00
	2	do	Ruler, 12-inch	.50	1.00
	2	do	Sharpener, pencil	4.00	8.00
	2	do	Shears, office	2.00	4.00
	1	do	Shovel	4.00	4.00
	4	do	Squeegee, floor	7.50	30.00
	4	do	Spindle	.50	2.00
	2	do	Stapler	8.00	16.00

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Food department—Con.	2	Each	Staple remover	$0.50	$1.00
	8	do	Tray, letter	2.50	20.00
	10	Dozen	Uniform, cooks	60.00	600.00
	1	Each	Scale, platform, 1,000 pound capacity, 1 pound by 100 pound beam.	110.00	110.00
	1	do	Tenderizer, meat	295.00	295.00
	1	do	Chopper, meat	550.00	550.00
	1	do	Slicer, angle feed	425.00	425.00
	1	do	Scale, hanging dial, 15-pound capacity.	16.00	16.00
	250	Dozen	Spoon, tea	2.45	612.50
	100	do	Spoon, dessert (oval soup)	4.25	425.00
	140	do	Spoon, iced tea	3.75	525.00
	180	do	Fork, utility	4.25	765.00
	170	do	Knife, one piece	4.95	841.50
Mezzanine kitchen	6	do	Plate, service, 11-inch	48.00	288.00
	75	do	Plate, dinner, 9-inch	9.40	705.00
	125	do	Plate, salad and dessert, 7½-inch.	6.45	806.25
	100	do	Plate, bread and butter, 6⅛-inch.	5.30	530.00
	75	do	Cup, tea	7.25	543.75
	30	do	Cup, bouillon, unhandled	5.95	178.50
	115	do	Saucer, tea	4.45	511.75
	6	do	Soup dish, rim deep, 8¾-inch	10.25	61.50
	6	do	Sauce boat, individual, 3-ounce.	13.20	79.20
	2	do	Gravy boat, large, 11-ounce	23.00	46.00
	160	do	Spoons, tea	3.40	544.00
	65	do	Spoons, bouillon	6.10	396.50
	12	do	Spoons, dessert (oval soup)	6.10	73.20
	500	Each	Indicator, plastic	.11	55.00
	6	Dozen	Spoons, table	6.75	40.50
	65	do	Spoons, iced tea	5.10	331.50
	125	do	Forks, utility	6.10	762.50
	65	do	Forks, salad	6.75	438.75
	12	do	Forks, oyster	5.10	61.20
	65	do	Knives, dinner, hollow handle, stainless steel blade.	14.85	965.25
	65	do	Butter spreaders, flat handle	6.10	396.50
	4	Each	Ladles, punch, hollow handle with 4½-ounce bowl double lip.	11.25	45.00
	1	Dozen	Sugar tongs	18.00	18.00
	1	do	Food or ice tongs	18.00	18.00
	3	Each	Cake or pie server, hollow handle, offset stainless steel blade.	3.40	10.20
	1	do	Carving fork, large, hollow handle.	4.75	4.75
	1	do	Carving knife, large, hollow handle, 8-inch blade.	4.75	4.75
	1	do	Cake knife, sabre handle	10.15	10.15
	3	do	Salad serving fork, hollow handle.	4.00	12.00
	3	do	Salad serving spoon, hollow handle.	3.50	10.50
	2	do	Cream pitcher, 16 ounces	25.25	50.50
	2	do	Sugar bowl and cover, 21 ounces.	37.50	75.00
	2	do	Waste bowl, 18 ounces	21.00	42.00
	2	do	Lemon dish, 4⅛ inches, with glass lining.	10.90	21.80
	6	do	Waiter, round, 10 inches	13.35	80.10
	6	do	Waiter, round, 14 inches	20.85	125.10
	6	do	Meat dish, oval, 16-inch	21.70	130.20
	6	do	Meat dish, oval, 18-inch	28.80	172.80
	6	do	Compote, deep top, 7-inch, plain stem with gadroon mount.	23.35	140.10
	12	do	Table water pitcher frame, complete with crystal lining.	32.10	385.20
	6	do	Crystal lining, extra plain, 50 ounces.	2.95	17.70
	10	do	Ice pail with bail handle, 4-pint, applied gadroon mount, with base.	31.80	318.00
	120	Dozen	Tumbler, water, 9½-ounce, heat treated.	.95	114.00
	120	do	Tumbler, iced tea, 12-ounce, heat treated.	1.45	174.00

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Mezzanine kitchen—Con.	60	Dozen	Tumbler, juice, 5-ounce, heat treated.	$0.95	$57.00
	4	Each	Punch bowl, 16-inch, crystal	3.50	14.00
	2	do	Punch bowl foot only	1.75	3.50
	6	Dozen	Salt shakers, 1-ounce, crystal, SS top.	1.00	6.00
	6	do	Pepper shakers, 1-ounce, crystal, SS top.	1.00	6.00
	3	do	Vinegar cruets, finger, crystal ground stopper.	9.70	29.10
	6	do	Sugar, U/N, 4-ounce, ground, with stopper.	4.80	28.80
	6	do	Creamer, handled, 3¼-ounce, ground.	2.80	16.80
	65	do	Sherbet, footed, 4-ounce	3.85	250.25
	6	do	Goblet, 10½-ounce, crystal	3.55	21.30
	6	do	Parfait, 4½-ounce, crystal	3.55	21.30
	15	do	Ash tray, 3¾-inch	1.75	26.25
	12	do	Sherbet, 5½-ounce	3.55	42.60
	12	Each	5 compartment relish dish, 13½-inch.	3.60	43.20
	12	do	3 compartment relish dish, 8-inch.	1.60	19.20
	50	Dozen	Punch cups, crystal	2.50	125.00
	12	Each	Buffet plate, 18-inch	7.20	86.40
	24	do	Sandwich plate, 14-inch	2.80	67.20
	12	do	Service plate, 10½-inch	1.80	21.60
	24	do	Salad plate, 8-inch	1.00	24.00
	36	do	Tray stand, chrome, 3-strap	10.45	376.20
	36	do	Tray, oval, aluminum, 27⅝ inches by 22¼ inches.	8.15	293.40
	144	do	Tablecloth, linen, white	12.90	1,857.60
	750	do	Napkin, linen, white, 20-inch-square.	.60	450.00
	120	do	Uniform, waitress and maid's, dress canary, apron matching.	5.75	690.00
	40	do	Coffee server, seamless drawn, stainless steel hollow ware.	17.50	700.00
	10	Dozen	Banquetier covers, aluminum, 9-inch-plate.	23.05	230.50
	12	Each	Ring mold, aluminum, 2-quart	1.85	22.20
	12	do	Pitcher, water, stainless steel, with ice lip, 3-quart.	8.80	105.60
	6	Dozen	Bread basket, oval, bamboo	3.45	20.70
Cafeteria	204	do	Water tumbler, 9½-ounce, heat-treated.	.95	193.80
	120	do	Iced-tea tumbler, 12-ounce, heat-treated.	1.45	174.00
	96	do	Juice tumbler, 5-ounce, heat-treated.	.95	91.20
	12	do	Saltshaker, 2-ounce, stainless steel top.	1.05	12.60
	12	do	Pepper shaker, 2-ounce, stainless steel top.	1.05	12.60
	3	do	Vinegar cruet, 6-ounce, finished, ground stopper.	9.70	29.10
	48	do	Sherbet, junior, 4½-ounce	1.00	48.00
	24	do	Ashtray, 4½-inch-square, crystal.	1.45	34.80
Main kitchen supply	18	do	Bake pan, aluminum, 10⅞ inches by 16 inches by 2¼ inches.	3.80	68.40
	18	do	Bake, pan, aluminum, 12 inches by 17¾ inches by 2¼ inches.	4.00	72.00
	18	do	Bake pan, aluminum, 12½ inches by 23 inches by 2¾ inches.	6.95	125.10
	24	do	Bake sheet, aluminum, 12 inches by 18 inches by 1 inch.	1.85	44.40
	24	do	Bake sheet, aluminum, 18 inches by 25¾ inches by 1 inch.	4.55	109.20
	6	do	Eggbeater, stainless steel, heavy duty, institutional.	1.40	8.40
	60	do	Cake pan, aluminum, 9 inches by 9 inches by 1¾ inches.	1.00	60.00
	2	do	Can opener, heavy duty, institutional type.	13.80	27.60
	6	do	Colander, aluminum, seamless, 11-quart.	8.80	52.80

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Main kitchen supply—Con.	6	Dozen	Colander, aluminum, seamless, 16-quart.	$10.35	$62.10
	24	do	Knife, paring, 3-inch, rosewood handle.	.75	18.00
	12	do	Knife, utility, rosewood handle.	1.25	15.00
	6	do	Slicer, roast beef, 14-inch, rosewood handle.	3.85	23.10
	5	do	Knife, carving, 8-inch, rosewood handle.	2.50	12.50
	12	do	Spatula, 10-inch, rosewood handle.	2.00	24.00
	12	do	Fork, cook's, heavy, 6½-inch stainless steel blade.	2.00	24.00
	36	do	Spoon, solid, 11-inch, heavy gage stainless steel.	.80	28.80
	36	do	Spoon, solid, 15-inch, heavy gage stainless steel.	1.05	37.80
	3	do	Double boiler, aluminum, heavy duty, 11-quart insert, 15-quart heavy duty bottom.	27.80	83.40
	3	do	Double boiler, aluminum, heavy duty, 17½-quart insert, 25-quart heavy duty bottom.	37.95	113.85
	6	do	Egg slicer, 2-way, nickel plated	2.05	12.30
	3	do	Fry pan, aluminum, 7-inch diameter.	2.30	6.90
	3	do	Fry pan, aluminum, 10-inch diameter.	4.45	13.35
	3	do	Fry pan, aluminum, 12-inch diameter.	5.55	16.65
	3	do	Fry pan, aluminum, 14-inch diameter.	7.60	22.80
	3	do	Ice cream disher, size No. 8	3.50	10.50
	8	do	Ice cream disher, size No. 16	3.50	28.00
	12	do	Ice cream disher, size No. 20	3.50	42.00
	3	do	Ice cream disher, size No. 24	3.50	10.50
	1	do	Transfer ladle, 3-quart, stainless steel.	27.00	27.00
	1	do	Transfer ladle, 4-quart, stainless steel.	30.00	30.00
	2	do	Mixing paddle, aluminum, 36-inch, 1 piece seamless.	22.40	44.80
	1	do	Mixing paddle, aluminum, 42-inch, 1 piece seamless	23.50	23.50
	1	do	Mixing paddle, aluminum, 48-inch, 1 piece seamless.	24.70	24.70
	4	do	Measure, alumiuum, 1-quart seamless.	1.90	7.60
	4	do	Measure, aluminum, 2-quart seamless.	2.75	11.00
	4	do	Measure, alumiuum, 4-quart seamless.	3.90	15.60
	6	do	Measuring spoon set, aluminum, 4-spoon.	.15	.90
	6	do	Mixing bowl, stainless steel, 1½-quart.	1.85	11.10
	6	do	Mixing bowl, stainless steel, 3-quart.	2.25	13.50
	3	do	Mixing bowl, stainless steel, 5-quart.	4.45	13.35
	144	do	Muffin pan, aluminum, 12's	3.80	547.20
	24	Dozen	Pie tin, 9-inch	1.15	27.60
	6	Each	Pitcher, aluminum, bakelite handle, 1½-quart.	3.25	19.50
	6	do	Pitcher, aluminum, bakelite handle, 2½-quart.	3.70	22.20
	6	do	Pitcher, aluminum, bakelite handle, 3¼-quart.	4.20	25.20
	6	do	Pitcher, 4½-quart, cool handle	4.45	26.70
	12	do	Pudding pan, aluminum, 6-quart, 12½-inch diameter.	2.15	25.80
	12	do	Pudding pan, aluminum, 10-quart, 14½-inch diameter.	3.20	38.40
	12	do	Roast pan, aluminum, 16 by 20 by 4½ inches.	14.70	176.40
	12	do	Roast pan, aluminum, 16 inches by 20 inches by 4½ inches, with straps and lugs.	16.45	197.40

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Main kitchen supply—Con.	12	Each	Roast pan, aluminum, 18 inches by 24 inches by 4½ inches, with reinforcing straps.	$18.45	$221.40
	12	do	Roast pan, aluminum, 18 inches by 24 inches by 4½ inches, with straps and lugs.	19.95	239.40
	12	do	Saucepan, aluminum, 2½-quart, heavy duty.	5.40	64.80
	12	do	Saucepan, aluminum, 4½-quart, heavy duty.	7.60	91.20
	12	do	Saucepan, aluminum, 6½-quart, heavy duty.	10.80	129.60
	12	do	Saucepan, aluminum, 8½-quart, heavy duty.	13.35	160.20
	3	do	Sieve, aluminum, 16-inch diameter, replaceable screen.	10.00	30.00
	6	do	Sauce pot, aluminum, 26-quart, heavy.	29.95	179.70
	6	do	Stock pot, 32-quart, heavy, aluminum.	30.80	184.80
	6	do	Stock pot, 40-quart, heavy, aluminum.	35.50	213.00
	1	do	French whip, 12-inch	1.30	1.30
	1	do	French whip, 14-inch	1.40	1.40
	1	do	French whip, 16-inch	1.50	1.50
	1	do	Piano whip, 12-inch	1.45	1.45
	1	do	Piano whip, 14-inch	1.55	1.55
	1	do	Piano whip, 16-inch	1.65	1.65
	3	do	Balloon whip, 16-inch	2.05	6.15
	6	do	Cake turner, offset	.50	3.00
	6	do	Fruit corers	.35	2.10
	3	do	Lemon sectionizers	17.95	53.85
	6	do	Pie knife, stainless steel blade, mirror finish.	1.50	9.00
	6	do	Ice chipper	.90	5.40
	6	do	Cap remover and bottle opener.	.15	.90
	6	do	Ice pick with breaker	.40	2.40
	3	do	Cleaver, 8-inch, rosewood handle.	3.95	11.85
	3	do	Skimmer, stainless steel, 4½-inch.	.90	2.70
	3	do	Skimmer, stainless steel, 6½-inch.	2.25	6.75
	3	do	Pastry brush, rubberset, 2-inch.	1.75	5.25
	12	do	Urn gage brush	.10	1.20
	6	do	Gong brush, sea scout, nylon, 20-inch.	1.15	6.90
	6	do	Super gong brush, short handle, nylon.	4.00	24.00
	6	do	Urn bowl brush	1.25	7.50
	6	do	Kleencut combination kitchen utility shears.	1.00	6.00
	6	do	Cutting board, hardwood, 15 by 20 by 1½ inches.	5.25	31.50
	1	do	Decorating set, complete	8.00	8.00
	3	do	Masher, vegetable	1.00	3.00
	4	do	Doilies, Kan Karrier, adjustable.	13.50	54.00
	3	do	China strainers, aluminum, 5-quart.	5.15	15.45
	6	do	Sugar and ingredient scoop, aluminum, No. 1.	2.65	15.90
	6	do	Sugar and ingredient scoop, aluminum, No. 3.	3.25	19.50
	6	do	Storage container, aluminum, 6-gallon.	12.75	76.50
	2	do	Icing bowls, aluminum, 6½-quart.	3.90	7.80
	2	do	Icing bowls, aluminum, 11-quart.	5.20	10.40
	2	do	Icing bowls, aluminum, 19-quart.	7.25	14.50
	6	do	Pail, aluminum, 12-quart, seamless.	5.20	31.20
	175	do	Tray, aluminum, 14 by 18 inches.	3.00	525.00
	96	do	Pan, stainless steel, 4 inches deep.	11.80	1,132.80

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Main kitchen supply—Con.	4	Each	Urn cup, 4-quart, stainless steel.	$6.90	$27.60
	1	do	Scale, utility, 1 ounce by 25 pounds, glass-covered dial.	6.50	6.50
	2	do	Scale, portion, 32 ounces by ⅛ ounce, glass-covered dial.	10.00	20.00
	12	do	Dishpan, stainless steel, heavy gage, 12-quart.	5.95	71.40
	3	do	Pie peel, aluminum, 34 inches by 7⅞ inches.	8.55	25.65
	10	Dozen	Jello molds, individual, aluminum.	.60	6.00
	3	Each	Ham holder, stainless steel	2.95	8.85
	3	do	Pie marker, 9 inches, 6 cut	1.15	3.45
	12	do	Roasting thermometers	3.00	36.00
	2	do	Candy and jelly thermometers	2.50	5.00
	2	do	Oven thermometers	1.50	3.00
	48	do	Porter's uniforms, white trousers, white shirt, shane, tie, and size selection to be determined.	7.00	336.00
	48	do	Cook's and maid's uniforms, dress, white, shane, sizes to be determined.	4.50	216.00
Butcher shop	3	do	Meat cleaver, 8 inches, rosewood handle.	3.95	11.85
	4	do	Ham boner, 6 inches, flexible rosewood handle.	1.25	5.00
	4	do	Special curved boner, 6 inches, rosewood handle.	1.15	4.60
	4	do	Straight boner, 6 inches, rosewood handle.	1.25	5.00
	3	do	Cimeter steak knife, 12 inches, rosewood handle.	3.80	11.40
	3	do	Butcher knife, 10 inches, rosewood handle.	2.70	8.10
	3	do	Butcher knife, 12 inches, rosewood handle.	3.60	10.80
	3	do	Butcher steel, 14 inches, rosewood handle.	4.00	12.00
	3	do	Petrel wire meat brush	.45	1.35
	2	do	Wire bonded block brush	1.25	2.50
	3	do	Cold storage thermometer	2.75	8.25
	36	do	Utility lug pan, meat, 26 inches by 15½ inches by 8 inches seamless, stain-resistant.	10.60	381.60
	1	do	Multioil stone	24.50	24.50
	1	do	Block scraper, 6 inches by 3 inches, rosewood handle.	1.15	1.15
	12	do	Poultry knives, 3 inches	.70	8.40
	3	do	Butcher saw, 24 inches	3.00	9.00
Ice cream room	1	do	Can opener, heavy duty, instant type.	13.80	13.80
	12	do	Ice cream spade, stainless steel.	2.50	30.00
	6	do	Ice cream can lifters	.75	4.50
	4	do	Measures, aluminum 1 quart	1.90	11.40
Vegetable supply room	2	do	Steel pinch bars, crate openers	2.50	5.00
	36	do	Utility basket, welded, heavy construction tapered sides, wood runners, 20 by 30 by 10 inches.	8.20	295.20
	12	do	Vegetable brushes, tampico fiber.	.15	1.80
	1	do	Mechanical apple parer and corer with slicer.	32.50	32.50
	2	do	Chopping bowls, maple, natural supreme finish.	7.20	14.40
	6	do	Paring knife, 3 inches, rosewood handle.	.60	3.60
	6	do	Fruit and utility slicer, rosewood handle.	1.00	6.00
	6	do	Measuring spoon sets, aluminum, 4 spoons.	.15	.90
	2	do	Canister sets, hinged cover, aluminium.	5.90	11.80
	6	do	Pan, stainless steel, 6 inches deep, storage.	11.80	70.80
	6	do	Shears, kitchen utility	1.00	6.00
	6	do	Storage container, aluminum, 5 gallon.	12.75	76.50

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Salad preparation room	1	Each	Can opener, heavy duty, institution type.	$13.80	$13.80
	72	do	Trays, aluminum, 142 by 18 inches.	3.00	216.00
	6	do	Solid spoon, stainless steel, 13 inches.	.90	5.40
	6	do	Slotted spoon, stainless steel, 13 inches.	.90	5.40
	12	do	Paring knife, 3 inches, rosewood handle.	.60	7.20
	12	do	Sabatier knife, 10 inches, rosewood handle.	4.50	54.00
	12	do	Utility knife, 6 inches, rosewood handle.	1.00	12.00
	4	do	Chopping boards, hardwood, 15 by 20 by 1½ inches.	5.25	21.00
	2	do	Refrigerator thermometer	1.50	3.00
	2	do	Salad bowl, supreme hardwood finish, 11 inches.	2.45	4.90
	2	do	Salad bowl, supreme hardwood finish, 15 inches.	7.20	14.40
	2	do	Canister set, hinged cover, aluminum.	5.90	11.80
	1	do	Mechanical apple parer and corer.	32.50	32.50
	6	do	Ice pick with breaker	.40	2.40
	6	do	Ice chipper	.90	5.40
	6	do	Sugar and ingredient scoop, aluminum.	2.65	15.90
	3	do	Shears, kitchen utility	1.00	3.00
	6	do	Cheese grater, wood plunger	3.95	23.70
	12	do	Pan, stainless steel, storage, 4 inches deep.	11.80	141.60
	5	do	Storage container, aluminum, 5 gallons.	12.75	63.75
Miscellaneous cafeteria supply	24	do	Serving spoon, stainless steel, slotted, heavy duty, 13 inches.	.90	21.60
	24	do	Serving spoon, stainless steel, solid, heavy duty, 13 inches.	.90	21.60
	18	do	Serving tong, stainless steel	1.00	18.00
	6	do	Duplex ford tong, stainless steel.	.50	3.00
	12	do	Ladle, solid, stainless steel, 2 ounces, sauce.	.90	10.80
	12	do	Ladle, solid, stainless steel, 4 ounces, gravy.	1.10	13.20
	12	do	Ladle, solid, stainless steel, 8 ounces, soup.	1.50	18.00
	6	do	Sandwich spreader, 3½ inches, rosewood handle.	.90	5.40
	6	do	Pie knife, offset, rosewood handle.	1.35	8.10
	6	do	Spatula, 8 inches, flexible, rosewood handle.	1.55	9.30
	6	do	Butcher knife, 7 inches, rosewood handle.	1.25	7.50
	6	do	Carver, 8 inches, hollow ground, rosewood handle.	2.50	15.00
	6	do	Serving fork, 5 inches, rosewood handle.	1.80	10.80
	2	do	Butcher steel, 12 inches, rosewood handle.	3.75	7.50
	4	do	French slicer, 10 inches, rosewood handle.	4.25	17.00
	2	do	Ham slicer, flexible, 10 inches, rosewood handle.	2.25	4.50
	4	do	Cream dispenser, 6 quarts, with stand.	69.75	279.00
	90	Dozen	Cafeteria tray, linen finish, first quality.	32.80	2,952.00
	12	Each	Can and bottle opener	.15	1.80
	40	Dozen	Salad bowl, plastic, birchwood finish.	3.80	152.00
	12	Each	Dixie ice scoop, stainless steel	1.65	19.80
	6	do	Coffee server, stainless steel, 2½-quart, with cover pouring spout.	11.20	67.20
	2	do	Dial straw dispenser, regular	4.50	9.00
Snack bar	4	Dozen	Holder for banana split liner, stainless steel.	15.60	62.40

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Fountain supply	8	Dozen	Holder for fountain dixies, chromium plated.	$12.00	$96.00
	6	do	Holder for dixie sundae dishes, chromium plated.	10.55	63.30
	2	Each	Dispenser for 6-ounce Dixie, stainless steel.	8.45	16.90
	2	do	Dispenser for 12-ounce Dixie, stainless steel.	8.45	16.90
	2	do	Stand for dispensers	9.50	19.00
	2	do	Dispenser for 6-ounce sundae dishes, open type, nickel-plate.	3.55	7.10
Miscellaneous catering service	1	do	Buffet chafing dish, stainless steel, 12 by 20 by 4 inch water pan, 2½-inch food pan, dome cover; 2 sterno burners; accessories, 2 compartment template, 2 stainless steel food pans and covers to fit.	150.00	150.00
Miscellaneous cafeteria supply	13	do	Glass baskets for glass washer 14 by 18 by 5 inches.	5.50	71.50
	8	do	Glass baskets for glass washer 14 by 18 by 6 inches.	6.00	48.00
	12	Dozen	Sugar dispensers, 12 ounce, stainless steel top.	4.20	50.40
	10	do	Custard cup, vitrified china	2.55	25.50
	5	do	Pot-pie dish, vitrified china	5.10	25.50
	6	Each	Hamilton Beach disher	3.50	21.00
	3	do	do	3.50	10.50
	24	do	Maid's uniforms	5.95	142.80
	1	Set	Biscuit cutters	.15	.15
	3	Each	Funnels, aluminum, 1 quart	1.75	5.25
	1	do	Rolling pin, revolving handles	2.75	2.75
	2	do	Hotel flour sifters	2.25	4.50
	6	do	Follansbee forge-welded seam ice cream cans.	3.50	21.00
			Total		35,148.00
Service department (includes locker rooms, housekeeping and maintenance department).	4	do	Applicator, wax	3.00	12.00
	1	do	Bar, crow, wrecking, goose-neck.	2.00	2.00
	6	do	Basket, waste paper, steel	8.00	48.00
	2	do	Blade, saw, compass, 14-inch	3.00	6.00
	2	do	Blade, saw, hack, 12-inch	.50	1.00
	2	do	Blade, saw, keyhole, 10-inch	2.00	4.00
	1	do	Box, miter and saw	35.00	35.00
	12	do	Broom, sweeping floor	1.50	18.00
	6	do	Broom, whisk	.75	4.50
	6	do	Brush, counter	1.50	9.00
	12	do	Brush, floor sweeping	5.00	60.00
	4	do	Brush, lobby	2.00	8.00
	6	do	Brush, paint, assorted sizes	10.00	60.00
	6	do	Brush, radiator	.75	4.50
	10	Dozen	Brush, scrub	7.50	75.00
	2	do	Brush, toilet	10.00	20.00
	6	Each	Brush, wire, clothes	2.00	12.00
	12	do	Bucket, galvanized, 14-quart	.75	9.00
	4	do	Can, waste	10.00	40.00
	12	do	Chamois skin, 24 by 36 inches	5.00	60.00
	6	do	Clipboard	.50	3.00
	2	do	Chisel, machinist, ¾ by 8 inches.	2.00	4.00
	2	do	Chisel, woodworking handle 1-inch blade.	2.00	4.00
	100	Yard	Cloth, dust, cheese cloth	.25	25.00
	4	Ball	Cord, 50-yard ball, drapier	4.50	18.00
	20	Each	Cover, mattress (twin)	2.50	50.00
	18	do	Curtain, shower	4.00	72.00
	1	do	Cutter, glass	2.00	2.00
	1	do	File, American standard, flat, bastard 10 inch.	2.00	2.00
	1	do	File, American standard, flat, bastard 12 inch.	2.00	2.00
	2	do	Flashlight	4.00	8.00
	12	do	Force cup, suction, plumbers	2.00	24.00
	36	Pair	Gloves, canvas	.50	18.00
	12	do	Gloves, rubber	.75	9.00
	3	Each	Hammer, carpenter's, claw	3.00	9.00
	1	do	Hack saw, frame, adjustable	4.00	4.00
	1	do	Hatchet, claw, cutting edge, 4 inch.	3.00	3.00
	2	do	Hammer, tack	3.00	6.00
	2	Dozen	Handle, brush, floor	5.00	10.00

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Service department, etc.—Con.	2	Dozen	Handle, mop, metal fitting	$7.50	$15.00
	3	Each	Handle, hammer, claw	1.00	3.00
	2	do	Handle, hatchet	1.00	2.00
	3	Hundred.	Hanger, coat	7.50	22.50
	2	Each	Horse, saw	5.00	10.00
	3	Dozen	Head, mop, wet	5.00	15.00
	2	do	Head, mop, oil	8.00	16.00
	2	Each	Kit, first aid	10.00	20.00
	2	do	Knife, folding handle type 8 inch (jack knife).	3.00	6.00
	1	do	Level, carpenter's wood, 12 inch.	5.00	5.00
	1	do	Mallet, carpenter's, round, 3½ by 5¼ inches.	3.00	3.00
	2	do	Pad, calendar	2.00	6.00
	3	do	Pad, desk	2.00	6.00
	32	do	Pad, mattress	4.00	128.00
	4	do	Pan, dust, lobby, 30-inch	1.00	4.00
	12	do	Pan, dust, janitor, with handle.	5.00	60.00
	1	do	Plane, jack, iron, length 14 inches.	5.00	5.00
	1	do	Plane, block, adjustable, length 6 inches.	5.00	5.00
	3	do	Plier, combination, slip-joint wire cutter, 8-inch.	3.00	9.00
	3	do	Plier, side cutting, flat nose, 8-inch.	3.00	9.00
	3	do	Pump, spray, hand	2.00	6.00
	1	do	Punch, drive pin, 5/32 inch diameter.	1.00	1.00
	3	do	Punch, paper	2.00	6.00
	1	do	Rack, wrapping paper, with cutter.	5.00	5.00
	1	do	Rack, string	2.00	2.00
	3	do	Ruler, 12-inch	.50	1.50
	3	do	Ruler, 18-inch	.75	2.25
	3	do	Rule, multiple, folding wood, 72 inch.	2.00	6.00
	3	do	Rule, yardstick, 36-inch	.25	.75
	1	do	Saw, nested, 3 blades (compass, keyhole, nail cutting).	4.00	4.00
	1	do	Screwdriver, close quarter, ¾-inch blade.	5.00	5.00
	2	do	Screwdriver, common heavy duty, 3-inch blade.	2.00	4.00
	2	do	Screwdriver, common heavy duty, 6-inch blade.	2.00	4.00
	2	do	Screwdriver, common heavy duty, 12-inch blade.	2.00	4.00
	1	do	Scissors, pattern	3.00	3.00
	3	do	Shears, paper	2.00	6.00
	2	do	Sharpener, pencil	4.00	8.00
	12	Set	Slides, cushion	.40	4.80
	2	Dozen	Sponge, rubber, 4 by 6 by 2½ incnes.	6.00	12.00
	2	do	Sponge, sheep wool	30.00	60.00
	6	Each	Squeegee, window, rubber	2.00	12.00
	6	do	Squeegee, floor, rubber	4.00	24.00
	2	do	Square, steel, 12-inch	2.00	4.00
	3	do	Staple remover	.50	1.50
	3	do	Stapler	8.00	24.00
	12	do	Swatter, fly	.15	1.80
	6	do	Sweeper, carpet	7.50	45.00
	1	do	Tape, shooter	12.00	12.00
	2	do	Tape, measuring, cloth, 72 inches.	1.00	2.00
	2	do	Tape, measuring, steel, 50 inches.	4.00	8.00
	3	do	Tape, measuring, steel, 72 inches.	2.00	6.00
	12	do	Tray, letter (mail)	2.50	30.00
	24	do	Vase, bud	1.00	24.00
	2	do	Water bottle, hot	4.00	8.00
	1	do	Wrench, adjustable, crescent type, 1 1/16-inch, jaw opening, 8 inches.	4.00	4.00
	1	do	Wrench, screw monkey, 1¾-inch jaw opening.	4.00	4.00
	1	do	Wrench, screw monkey, 2⅛-inch jaw opening.	4.00	4.00
			Total		1,470.10

RECAPITULATION OF GROUPS II AND III EQUIPMENT AND COSTS

PROJECT NO. IND-46

Department and/or subdepartment	Room numbers	Group II cost	Group III cost	Department or subdepartment total
Administration department.	B016, B032, 031, 032, 034, 035, 038, 039, 043, 044, 045, 047, 102, 102a, 103, 104, 104a, 104b, 104c, 105, 106, 106a, 107, 109, 110, 114, 116, 116a, M106, M107, M108, M109, M110, M112, M114, M119, M129.	$45,217.82	$2,110.12	$47,327.94
Administration department employee's locker, lounge and restrooms, public restrooms, stairs.	B001, B002, B003, B017, B018, B021, B022, B023, B025, B026, B027, 041, 042, 048, 112, 113, M111, M113, 81, 82, 83, 84, 85.	2,778.00	.....	2,778.00
Administration department apartments.	M117, M118, M130, M131, M132, M133, M134, M135, M136, M137, M138, M139, M140, M141, M142, M143, M144.	8,009.85	.....	8,009.85
Bookstore	040, 115	7,778.72	.....	7,778.72
Business office	B005, B007, 003, 004, 005, M115, M116	6,338.00	189.00	6,527.00
Food department	001, 002, 006, 007, 008, 009, 009a, 010, 011, 011a, 012, 013, 014, 015, 016, 017, 018, 019, 019a, 020, 021, 022, 023, 024, 024a, 024b, 025, 026, 029, 030, A101, A102, A102a, 101, 117, 118, 119, 120, 121, 122, 123, 124, 125, M101, M102, M103, M104, M105, M121, M122, M122a, M123a, M124, M125, M126, M127, M128.	36,646.21	35,148.00	71,794.21
Food department employee's restroom.	027, 028, M123	194.00	.....	194.00
Service department (includes housekeeping and maintenance department).	B004, B005a, B006, B008, B008a, B008b, B009, B009a, B010, B011, B011a, B012, B013, B013a, B013b, B014, B015, B019, B020, B024, B028, B029, B030, 046, 049, 050, 111, M120.	2,046.00	1,470.10	3,516.10
Total		109,008.60	38,917.22	147,925.82

GROUPS II AND III EQUIPMENT CERTIFICATION

Name of project: Food service building, Indianapolis, Ind.
Project No. IND-46.

It is hereby certified that the attached list includes groups II and III equipment items only and that such equipment is sufficient to adequately equip the facility.

TRUSTEES OF INDIANA UNIVERSITY,
J. A. FRANKLIN,
Vice President and Treasurer.

JULY 1, 1952.

INDIANA STATE BOARD OF HEALTH,
L. E. BURNEY.

SEPTEMBER 4, 1952.

SUPPLEMENTAL LIST OF GROUP III EQUIPMENT CERTIFICATION

Name of project: Food Service Building, Indianapolis, Ind.
Project No. IND-46.

It is hereby certified that the attached list includes supplemental group III items only and that such equipment is sufficient to adequately equip the facility.

TRUSTEES OF INDIANA UNIVERSITY,
J. A. FRANKLIN.

September 8, 1952.

INDIANA STATE BOARD OF HEALTH,
L. E. BURNEY,

September 23, 1952.

Recapitulation of supplemental list of group III equipment and costs

PROJECT NO. IND-46

Department and/or subdepartment	Room numbers	Group II cost	Group III cost	Department or subdepartment total
Administration Department.	034, 101, 103, 104, 105, 106, M102, M106, M109, M110, M117, M135, M136, M137, M138, M139.		$28,076.50	$28,076.50
Total				28,076.50

Supplemental list of group III equipment

PROJECT NO. IND-46

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Administration Department	34	Yards	Apartment, M117: Carpet, 27-inch width, over 40-ounce hair lining.	$8.42	$286.28
			Allowance for installation		1,000.00
	1	Pair	Lobby, 106: Draperies, 4 widths each, lined with ecru 64/104 sateen, rigged to draw on Kirsch heavy-duty traverse rods, hang to floor, pleat on hooks.	208.39	208.39
	4	do	Lounge, 103: Draperies, 2 pairs 4¼ widths each, 2 pairs 6 widths each, lined with ecru 64/104 sateen, rigged to draw on Kirsch heavy-duty traverse rods, pleat on hooks, hang to floor (140 square yards.)	370.82½	1,483.30
			Cafeteria, 101:		
	4	do	Single draperies, 1 pair 5½ widths, 3 pair 6 widths each, 1 single 5 widths, unlined, rigged to draw on Kirsch heavy-duty traverse rods, pleat on hooks, hang to floor (380 square yards).	1,048.12½	4,192.50
	1	do	Draperies, 4 widths each	242.66	242.66
	1	do	Draperies, 8 widths each, unlined, pleat on hooks, hang to floor from ceiling on Kirsch heavy-duty rods with carriers, hung stationary.	485.34	485.34
	1	do	Manager's office, 104: Draperies, 2 widths each, lined with ecru 64/104 sateen, rigged to draw on Kirsch heavy-duty traverse rods, tops pleated on hooks, hang to floor.	152.10	152.10
	1	do	Conference room, 105: Draperies, 2 widths each, lined with ecru 64/104 sateen, rigged to draw on Kirsch heavy-duty traverse rods, tops pleated on hooks, hang to floor.	152.10	152.10
	1	do	Private dining room, M102: Draperies, 5½ widths each, lined with 36 inch, 64/104 sateen, special color, rigged to draw on heavy duty Kirsch traverse rods, tops pleated on hooks, hang to floor.	279.50	279.50
	2	do	Display room, 034: Draperies, 4 widths each, unlined.	242.66	485.32

Supplemental list of group III equipment—Continued

PROJECT NO. IND-46—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Administration Department—Continued	5	Sets	Apartments M135, M136, M137, M138, M139, M117: Draperies, 2 pair 3 widths each, unlined.	$143.00	$715.00
	5	do	Curtains, room divider, 6 widths, unlined.	143.00	715.00
	5	Pair	Curtains, fiber glass, 3 widths each, unlined.	132.60	663.00
	1	Set	Draperies, 1 pair 3½ widths each, lined.	122.20	122.20
	1	Pair	Curtains, fiber glass, 3 widths each, unlined.	66.30	66.30
			Allowance for installation		1,000.00
	126	Yards	Carpet, Wilton, round wire 3 frames, 27 inches.	11.72	1,476.72
	126	do	Lining, all hair, 40 ounces	.80	100.80
	30	Feet	Bar, binder brass	1.65	49.50
			Total		28,076.50
			Lounge, 103:		
	6	Each	Rugs, Hartford Saxony, 10 feet 6 inches by 21 feet, made from 27-inch width, bound on 2 sides and 1 end.	507.95	3,047.70
	6	do	Pads to fit above, 10 feet 6 inches by 21 feet.	54.05	324.30
	2	do	Rugs, Hartford Saxony, 6 feet 9 inches by 21 feet, made from 27-inch width, bound on 2 ends.	250.89	501.78
	2	do	Pads, rug, 6 feet 9 inches by 21 feet.	34.41	68.82
	1	do	Rug, Hartford Saxony, 10 feet 6 inches by 94 feet 6 inches, made from 27-inch width, bound on 2 sides and 1 end.	2,250.27	2,250.27
	1	do	Pad, rug, 10 feet 6 inches by 94 feet 6 inches.	244.68	244.68
	1	do	Rug, Hartford Saxony, 6 feet 9 inches by 89 feet made from 27-inch width, bound on 2 sides and 1 end.	433.10	433.10
	1	do	Pad, rug, 6 feet 9 inches by 89 feet.	145.95	145.95
			Mezzanine floor corridor, M106, M119:		
	255	Yards	Carpet, Hartford Saxony, cut, sew, and lay solid in spaces M106–M119 and M127.	14.23	3,628.65
	255	do	Lining, all hair, 48-ounce	.96	241.80
	6	Feet	Bar, binder, brass	1.65	158.40
	6	Yards	Display room, 034: Carpet, Wilton, round wire, 48-inch.	11.72	70.32
	68	do	Apartment, M135: Carpet, 27-inch width, over 40-ounce, hair lining.	8.42	572.56
	75	do	Apartment, M136: Carpet, 27-inch width, over 40-ounce, hair lining.	8.42	631.50
	75	do	Apartment, M137: Carpet, 27-inch width, over 40-ounce, hair lining.	8.42	631.50
	75	do	Apartment, M138: Carpet, 27-inch, over 40-ounce, hair lining.	8.42	631.50
	73	do	Apartment, M139: Carpet, 27-inch width, over 40-ounce, hair lining.	8.42	614.66

Room legend sheet

SUPPLEMENT LIST OF GROUP III EQUIPMENT

Room No.	Title	Department or subdepartment	Cost
		Administration Department	$28,076.50

GROUP II EQUIPMENT

B-014	Maintenance supply office	Service department	$782.97
B-024	Housekeeping equipment	do	208.69
B-032	Employee dining room	Administrative department	208.62
004	Receiving room	Business office	694.60
008	Bakery	Food department	284.00
010	Ice cream preparation	do	20.00
018	Dietitian's office	do	50.00
019a	Dish room	do	290.00
020	Meat preparation	do	275.00
A-101	Snack bar	do	926.55
101	Dining room-cafeteria	do	50.56
104	Manager's office	Administrative department	70.00
119	Kitchen	Food department	1,411.74
122	Dietitian's office	do	70.00
125	Cafeteria serving area	do	195.92
M-115	Business office	Business office	208.00
M-122	Kitchen	Food department	1,070.00
	Total		6,816.65

Group II additional equipment

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
B-014 Building supply office	1	Each	Chair, side	$24.25	$24.25
	1	do	Costumer	6.64	6.64
	1	do	Vacuum, wet-dry, heavy duty	242.08	242.08
	1	do	Floor maintenance machine	300.00	300.00
	1	do	Scaffold, 20-foot	210.00	210.00
			Total		782.97
B-024 Housekeeping equipment.	1	do	Chair, side	24.25	24.25
	1	do	Costumer	6.64	6.64
	4	do	Racks, garment, mobile	44.45	177.80
			Total		208.69
B-032 Employee dining room	20	do	Chair, folding	6.00	120.00
	2	do	Tables, folding	44.31	88.62
			Total		208.62
004 Receiving room	1	do	Jack	72.00	72.00
	1	do	Scale, Toledo portable	622.60	622.60
			Total		694.00
008 Bakery	1	do	Mixing machine	259.00	259.00
	1	do	Truck bowl	25.00	25.00
			Total		284.00
010 Ice cream preparation	1	do	Scale	20.00	20.00
018 Dietitian office	1	do	Cabinet, 2-drawer	50.00	50.00
019a Dish room	1	do	Burnishing machine	290.00	290.00
020 Meat preparation	1	do	Machine, steak and patty, Hollymatic.	227.50	227.50
	1	do	Plate, 1/16-inch	34.50	34.50
	1	do	Slide, 1/16-inch	13.00	13.00
			Total		275.00

Group II additional equipment—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
A-101 Snack bar	2	Each	Cups, soup	$8.47	$16.94
	12	do	Cups, mix	2.00	24.00
	1	do	Dispenser, iced tea	37.96	37.96
	1	do	Dispenser, hot chocolate	65.35	65.35
	1	do	Dispenser, juice	89.95	89.95
	1	do	Dispenser, malt	16.95	16.95
	1	do	Food warmer, double	47.50	47.50
	1	do	Fudge warmer	37.50	37.50
	3	do	Mixer, drink	29.25	87.75
	1	do	Soup kitchen	33.15	33.15
	1	do	Roller, grill	194.50	194.50
	1	do	Roll warmer	200.00	200.00
	1	do	Silver dip	75.00	75.00
			Total		926.55
101 Dining room	2	do	Chair, high	25.28	50.56
104 Managers office	1	do	Telephone stand	70.00	70.00
119 Kitchen	3	do	Coffee boiler, Wearever No. 4711.	5.85	47.55
	3	do	Pan, roast 24 by 18 by 7, Wearever No. 4491.	40.95	122.85
	3	do	Pan, roast 20 by 17 by 7, Wearever No. 4493.	14.98	44.94
	3	do	Pans, roast, 21 by 18 by 2, Wearever No. 4492.	13.25	39.75
	1	do	Roll former, cloverleaf	17.00	17.00
	3	do	Tempscribe, thermometer model No. T-5100.	51.00	153.00
	2	do	Tub, 36 quart, Wearever No. 52183/4.	14.36	28.72
	2	do	Tub, 65 quart, Wearever No. 52191/4.	21.57	43.14
	2	do	Vacuum, thermal liquid carrier.	80.00	160.00
	3	do	Waste receptacle, self-closing lid.	9.93	29.79
	1	do	Vacuum cleaner	100.00	100.00
	2	do	Dispensers, plate	300.00	600.00
	1	do	Truck, bowl	25.00	25.00
			Total		1,411.74
122 Dietitians office	1	do	Telephone stand	70.00	70.00
125 Cafeteria serving area	2	do	Dispenser, iced tea	37.96	75.92
	12	do	Lowerator racks	10.00	120.00
			Total		195.92
N-115 Business office	1	do	Cabinet, duplicator	38.00	38.00
	1	do	Telephone stand	70.00	70.00
	1	do	File, 4-drawer, legal	100.00	100.00
			Total		208.00
M-122 Kitchen	1	do	Food conveyor	800.00	800.00
	1	do	Bun and bread toaster conveyor.	270.00	270.00
			Total		1,070.00

Room legend sheet

GROUP III EQUIPMENT

Room No.	Title	Department or subdepartment	Cost
		Administration department	$8.33
		Food department	1,662.55
		Business office	201.10
		Service department	44.28
		Total	1,916.26

GROUP III.—ADDITIONAL EQUIPMENT

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Food department	2	Each	Basket, french fry for model NK–3 Hotpoint.	$12.50	$25.00
	4	do	Basket, french fry for model HKG–46.	11.50	46.00
	2	do	Basket, to hold 6 silverware cylinders.	7.50	15.00
	23	do	Basket, glass, No. 602, regular tumbler.	4.60	105.80
	12	do	Basket, glass, No. 602, ice tea tumbler.	4.95	59.40
	4	do	Board, cutting	1.95	7.80
	2	do	Book, inventory, No. 1049K	7.20	14.41
	6	Dozen	Bowl, Supreme Boltabilt, No. 955.	4.75	28.50
	4	Each	Covers, inset, Thurmaduke	1.62	6.48
	4	do	Covers, ½ size, Thurmaduke	1.75	7.00
	4	do	Covers, ⅓ size, Thurmaduke	3.25	13.00
	3	do	Containers, liquid, Wearever, No. 4624.	4.99	14.97
	3	do	Containers, liquid, Wearever, No. 5784.	4.76	14.28
	10	Dozen	Cups, custard, No. 352, 6 ounce.	2.40	24.00
	24	Each	Cylinders, silverware	2.25	54.00
	2	do	Dipper, pie bakers 16 ounce, Wearever No. 5346.	2.38	4.76
	2	do	Dipper, pie bakers 24 ounce, Wearever No. 5324.	2.67	5.34
	12	Dozen	Dispenser, sugar, No. 102	7.20	86.40
	2	Each	Dispenser, toothpick	.90	1.80
	6	do	Dripcut, 48 ounce	1.95	11.70
	24	do	Dripcut, 14 ounce	1.15	27.60
	1	do	File, recipe, Mealmaster	15.55	15.55
	2	do	Griddle, brick	3.25	6.50
	2	do	Holder, griddle, brick	2.25	4.50
	8	do	Inset, 8 quart, Thurmaduke	5.46	43.68
	1	do	Kit, price marking	8.00	8.00
	6	do	Knife, grapefruit, Dexter	.65	3.90
	3	do	Knife, cheese, Dexter	2.50	7.50
	6	Dozen	Liner, supreme, Boltabilt No. 914.	2.95	17.70
	3	Each	Measure, pharmaceutical	3.25	9.75
	4	do	Minute minders	2.50	10.00
	30	Dozen	Molds, jello, individual	.50	15.00
	2	Each	Opener, cardboard box	.75	1.50
	4	do	Pads, change	.90	3.60
	15	do	Pads, table, 72 inches by 72 inches.	2.07	31.05
	25	do	Pads, table, 63 inches by 108 inches.	2.75	68.75
	10	do	Pads, table, 72 inches by 108 inches.	4.13	41.30
	18	do	Pan, hotel, 10-quart, Thurmaduke.	4.75	85.50
	18	do	Pan, hotel, 4½-quart, Thurmaduke.	3.15	56.70
	12	do	Pan, hotel, 8¾-quart, Thurmaduke.	6.90	82.80
	12	do	Pan, hotel, 4¾-quart, Thurmaduke.	4.10	49.20
	6	do	Pan, cake, loaf, Wearever	1.69	10.14
	4	do	Pans, cake, angel, Wearever	1.84	7.36
	2	do	Plate, top, Thurmaduke No. k	6.50	13.00
	2	do	Plate, top, Thurmaduke No. 4	6.50	13.00
	2	do	Plate, top, Thurmaduke No. 9	6.60	13.20
	4	do	Poachers, egg, Wearever	1.52	6.08
	6	do	Pots, 1¼-quart Baine Marie	3.00	18.00
	4	do	Pots, 2-quart, Baine Marie	4.00	16.00
	10	Dozen	Pots, tea, stainless steel	29.95	299.50
	2	Each	Press, garlic	.80	1.60
	6	do	Racks, meat	1.75	10.50
	6	Dozen	Ring, fruit juice, Boltabilt No. 914.	2.25	13.50
	3	Each	Scraper, pan, Dexter, 3-inch stiff.	.90	2.70
	3	do	Scraper, pan, Dexter, 3-inch flexible.	.95	2.85
	6	do	Scraper, pan	1.00	6.00
	24	do	Shakers, salt and pepper, aluminum.	.15	3.60
	6	do	Scoop, parisienne or mellon baller.	.20	1.20

GROUP III EQUIPMENT—Continued

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Food department—Con.	6	Each	Slicer, lunch, 8-inch Dexter	$1.20	$7.20
	6	do	Slicer, lunch	3.00	18.00
	2	Pair	Shears, fowl	5.50	11.00
	2	Dozen	Skewers	3.00	6.00
	2	Each	Thermos jug set	13.00	26.00
	1	Dozen	Tongs, ice 9-inch, stainless steel	4.20	4.20
	12	Each	Turner, hamburger, Russell	1.10	13.20
	6	do	Turner, hamburger	.50	3.00
			Total		1,662.55
Administration department	3	do	Holder, cord	1.06	3.18
	12	do	Holders, telephone	.40	4.80
	12	do	Pads, rubber finger	.35	.35
			Total		8.33
Business office	4	do	Cash bags	2.00	8.00
	24	do	Key-Bak	2.25	54.00
	10	do	Master keys	.35	3.50
	12	Dozen	Combination padlock	11.30	135.60
			Total		201.10
Service department	9	Each	Pads, liquid waxer	.99	8.91
	6	do	Squeegee, rubber replacements, 24 inches.	1.24	7.04
	6	do	Squeegee, rubber replacements, 14 inches.	.20	1.20
	3	do	Waxer, liquid	7.50	22.50
	5	do	Poles, window, to fit into squeegee.	.39	1.95
	4	do	Connector for window poles	.67	2.68
			Total		44.28

Recapitulation of groups II and III additional equipment

Department and/or subdepartment	Room numbers	Group II cost	Group III cost	Department or subdepartment total
Administrative department	B-032, 104	$278.62	$8.33	$286.95
Business office	M-H5-004	902.60	201.10	1,103.70
Food department	119, 018, 020, A-101, 101, 125, 008, 010, 019a, 122, M122.	4,643.77	1,662.55	6,306.32
Service department	B-014, B-024	991.66	44.28	1,035.94
	Total	6,816.65	1,916.26	8,732.91

GROUP II AND III ADDITIONAL EQUIPMENT CERTIFICATION

Name of project: Food Service Building, Indiana University Medical Center, Indianapolis, Ind.
Project No. IND–46.

It is hereby certified that the attached list includes groups II and III additional equipment items only and that such equipment is sufficient to adequately equip the facility.

BOARD OF TRUSTEES OF INDIANA UNIVERSITY,
J. A. FRANKLIN.

SEPTEMBER 18, 1953.

INDIANA STATE BOARD OF HEALTH,
L. E. BURNEY.

NOVEMBER 4, 1953.

Room legend sheet

GROUP III EQUIPMENT

Room No.	Title	Department or subdepartment	Cost
		Food department	$8,252.50

ADDITIONAL GROUP III EQUIPMENT

Room No. and title	Quantity	Unit	Description	Unit cost	Total cost
Cafeteria	200	dozen	Dinner plate, 9-inch, cord edge	$7.60	$1,520.00
	400	do	Salad and dessert plate, 6¾-inch, Como	6.65	1,920.00
	400	do	Fruit dish, 4½-inch, cord edge	3.60	1,440.00
	150	do	Soup bowl, 36'S, 5¾-inch, Como	6.65	997.50
	250	do	Cup, tea, Ashton B/H	5.90	1,475.00
	250	do	Saucer, tea, Jefferson	3.60	900.00
			Total		8,252.50

Recapitulation of additional groups II and II equipment and costs

PROJECT NO. IND–46

Department and/or subdepartment	Room No. 1	Group II cost	Group III cost	Department or subdepartment total
Food department			$8,252.50	$8,252.50

ADDITIONAL GROUP II AND III EQUIPMENT CERTIFICATION

Name of project: Food Service Building, Indianapolis, Ind.
Project No. IND–46.

It is hereby certified that the attached list includes groups II and III equipment items only and that such equipment is sufficient to adequately equip the facility.

TRUSTEES OF INDIANA UNIVERSITY,
J. A. FRANKLIN,
Vice President and Treasurer.

April 5, 1954.

INDIANA STATE BOARD OF HEALTH,
L. E. BURNEY.

April 6, 1954.

ST. JOHN'S HOSPITAL, SPRINGFIELD, MO.

Mr. BUSBEY. Now, on page 18 of the task force report, I see they comment in regard to the St. John's Hospital in Springfield, Mo., as follows:

An application by St. John's Hospital in Springfield, Mo., was submitted originally in May 1948, with an estimated cost of $5,183,000, the Federal share of which was one-third, or $1,719,666. The application was amended in December 1949 to provide for an estimated total of $6,818,620, with the Federal share of one-half, or $3,397,310. The final part IV of the application was approved in June 1950, for $7,357,826, with the Federal share of $3,639,028.

This project had a B priority, but was approved because no application had been submitted for higher priority projects. The original application was submitted and approved to facilitate a drive for funds.

It gives a list of the equipment, and so forth, that I will ask be inserted in the record so that it will not take up the time of the committee.

(The information referred to follows:)

The project consists of a new 7-story hospital of 265 beds plus a nurses' home and school for 61 nurses.

The cost of equipment in which Federal funds were used totals almost $500,000, which includes the following:

Sofas (31)	$9,800
Ranging in price from $265 to $687.	
Linens for nurses' home	5,340
Including 120 dozen each: sheets, pillow cases, bath towels, face towels, wash towels; 220 blankets, 110 bed spreads.	
Furniture for nurses' quarters, exceeded	24,384
Ranging in cost from $253 per room for nurses to $370 per room for guests.	
Equipment for auditorium in nurses' home	4,684
Including a cyclorama for $2,500.	
Office equipment, approximately	30,700
Including 1 bookkeeping machine, $5,500; 1 posting and billing machine, $1,500; 4 transcribing machines, $1,000; 5 adding machines, $1,052; 4 cash registers, $2,500; 61 file cabinets, $6,670; 62 desks, $7,073; 24 typewriters, $3,990.	
Chapel equipment, approximately	18,000
Including 5 cabinets, ranging in price from $150 for a linoleum-top unit to $1,405 for 1 with a stainless steel top. Total $4,565.	

Mr. BUSBEY. With all of these changes in the application and the amounts approved from the time of the original application, I think it would be well if you could trace the handling of the application for funds for St. John's Hospital in Springfield, Mo., and indicate how much the Federal share was changed in the process. They report three different figures here.

Dr. CRONIN. Mr. Chairman, I am not acquainted with the details of this project; I will be glad to supply them for the record. I can comment in this way about that project in general. That is a large Federal participation. The percentage of participation is established by the State and would apply to the final total cost of the project. In other words, if the Federal participation in Missouri was 45 percent of the total cost, then the total cost after the change orders were in would be the total cost which the Federal Government participated in.

On a project of $7 million and better, as this project is, in the original estimate, it is not surprising to me to see they had change orders in the amount they have. That is not an unusual amount of money involved in change orders for a project of that size; because, in the first instance, we are dealing with estimates and as they move through the construction phase of the project toward completion, certain change orders are necessary and essential.

(The following additional information was subsequently submitted:)

PROJECT NO. MISSOURI 4—ST. JOHN'S HOSPITAL, SPRINGFIELD, MO.

An original application was submitted September 23, 1948, for the construction of (1) a 210-bed new general hospital, (2) a 90-bed nurses' home on three floors, (3) a boiler plant, and (4) a laundry. The total estimated cost was $5,159,000, of which 33⅓ percent or $1,719,000, was to be the Federal share. While the facility was in the planning stage, the sponsors decided to expand the scope of the project and in January 1950 an amended application was submitted, increasing the capacity of the proposed hospital to 265 beds and increasing the nurses' home and training school by the addition of a fourth floor. The total cost was $6,794,620 and a Federal share of $3,397,310, on a 50-percent matching basis existing at that time. These estimates were low when bids were taken and the final cost was $7,278,055.81, of which $3,639,027.90 was the Federal share. The reason for

the increase in Federal percentage from 33⅓ percent to 50 percent was the fact that Public Law 380, 81st Congress, permitted such increase in Federal participation. Fifty percent was the matching basis used by Missouri at the time the project was finally approved.

DETERMINATION AS TO PROPER EQUIPMENT

Mr. BUSBEY. They state in their report to the committee that the cost of equipment in which Federal funds were used totaled almost $500,000, which includes a lot of items that I have asked be inserted in the record. Who makes the determination on whether the equipment purchased in a hospital like this is too costly and elaborate, or of the proper type? Does the hospital board itself make that determination?

Dr. CRONIN. Not entirely. The sponsoring construction board indicates what they want in the way of equipment in the hospital. Our regional office staff has the responsibility to determine whether or not the equipment requested in that project is in line with reason for equipping a project of that kind, and whether or not the cost of such equipment items is exorbitant, or the going market rate.

Now $500,000 worth of equipment on a $7 million project is not out of line from the aspect of what the normal equipment needs, percentagewise, are in the total project.

CHAPELS

Mr. BUSBEY. I think this might be just as good a place as any to discuss the question of chapels in the Hill-Burton hospitals. We discussed it briefly last year, as you will recall. And I want the record to show, as far as I am personally concerned, I think that a chapel is a very important part of a hospital. I am not talking against chapels as such; but of the various hospitals I visited last year I must say that the chapel, as it is called, in this St. John's Hospital is by far the most elaborate. I spent quite a great deal of time at St. John's Hospital, going through it from top to bottom, because it was new and one of the most modern hospitals I had ever been in. This really is not a chapel. It is a church that they built in this hospital. I think the auditorium would probably seat at least 200 people very comfortably. The thing I could not understand is why they put is up on the fifth floor, because I doubt if the patient load of the hospital would ever be enough for ambulatory patients to fill it. I was informed this chapel was paid for by outside subscriptions, which I commend very highly. On the other hand, in order to build the chapel and also meet their share of the cost of the rest of the hospital they had to go to the local bankers and borrow $2,500,000 if my memory serves me correctly, and put a first mortgage on this hospital that was a prior claim to any other funds.

Just what are the regulations that the Department works under with regard to chapels and the putting of a prior claim on these Hill-Burton hospitals?

Dr. CRONIN. As far as the regulations are concerned, chapels have been declared eligible by advice of our General Counsel. In other words, our General Counsel has ruled that the inclusion of chapels in hospitals is an eligible participating aspect of the total hospital.

Mr. BUSBEY. I might say, I really did not appreciate a chapel in

a hospital until I had to spend 6 weeks in a hospital last fall. I obtained an appreciation of chapels that was greater than I would have had by just viewing them from the outside.

Dr. MASUR. I think you would be very much interested to know that the installation of chapels in Army, Navy, Air Force, and Veterans' hospitals and in all Public Health Service hospitals and the Clinical Center of the National Institutes of Health, is well accepted and, as you indicate, is a very desirable part of the healing process in the treatment of patients and forms standard practice in our own hospital procedure. And it is very gratifying to see hospital patients who are given an opportunity to worship according to their particular faith in these chapels which, interestingly enough, provide for worship of the different faiths.

Mr. BUSBEY. That is right.

Dr. CRONIN. As far as your remark about the chapel being on the fifth floor, the only thing I can think of is that the hospital design with the chapel on the fifth floor to me would indicate it was certainly not designed for outside use or for others than the patients and hospital staff on duty, because I certainly would assume that an administrator with a chapel on the fifth floor would not invite the public to come through the corridors and elevators in the hospital. It is not unusual to find chapels in institutions designed and placed on floors above the first floor level, and even below the first floor level in some cases.

As far as chapels in general are concerned, which are eligible, and we do approve them, the extent of the chapel, the equipment of the chapel, the furnishing of the chapel is certainly something that our regional office looks at with a very practical eye, to see that it is not luxurious, and so forth, is not exorbitant in cost, and they try to keep it within the range of what is a conventional facility of that kind in a conventional hospital, as far as Federal participation is concerned.

MORTGAGES ON HILL-BURTON HOSPITALS

As far as your other question concerning the placement of mortgages, and so forth, on institutions, we have no regulations on that. It is not anything we are concerned with under the law. The operation of that hospital and the administration of the hospital is something that, as far as the Federal Government is concerned, is excluded by law, in section 635 of the law, from any Federal participation. So if an institution wants to put a mortgage on its place, they have every right to do so and there would be no comments from us.

Mr. BUSBEY. I appreciate what the law says, but I would like to get your personal thinking on some of these problems. I am not interested from the point of view of this particular hospital, but in the practice in general.

Dr. CRONIN. I have a mortgage on my house. I do not like it, but it is the only way I can have a house. I think under normal living procedures, in our cultural pattern, mortgages are a part of our way of life, depending on what we want to do. If I think I can, with my income over a period of time, mortgage my house and make for a beter living situation for my own family and am willing to pay the penalty of the interest rates, I see nothing wrong in mortgages.

Mr. BUSBEY. We are not talking mortgages as such, we are talking about a practice in financing Hill-Burton hospitals.

Now do you think the fact they can secure a mortgage on a hospital that participates in Hill-Burton funds might have a tendency to decrease the enthusiasm and willingness of the community to go out and raise additional funds in the community?

Dr. CRONIN. In order to answer that question, I think it is only right to point out that eventually they are going to have to pay for that mortgage and pay off the sum of money they are raising by this mortgage. That is an obligation that the community assumes and if the community wants to approach the situation through that channel, I think it is their prerogative to make the decision.

My hometown in Ohio built a hospital. I know something about how they raised the money and what they did. I know the people in the town. It is in the northern part of Ohio, in a town in an industrial area. I also know what the hospital life is in general in that community. I know before we built that hospital, or attempted to, the leaders of the community sat down around the table and tried to figure out how they could raise money. I am sure that same type of thing is done in many other areas. And when they make the decision on how they are going to raise the money and how much they want to raise, it is my personal opinion it is their decision.

If I lived in that community permanently, I might have had a voice. I think each community differs, and I think it is basic to the way of life in our country that they do differ.

Mr. LARMON. Mr. Chairman, I could give you a personal illustration which has made me enthusiastic in this individual instance, particularly in regard to contributions under the Hill-Burton Act.

I live in a community of 5,000. There are some 40 members in the medical staff. The hospital serves an area of 100 miles in Vermont and New Hampshire. We had a waiting list that was depressing in terms of serving the people when the campaign was begun to raise funds. The final amount used for construction was about $3 million. In raising funds, we had to go well beyond the community of 5,000 and when we went to those other communities and organized campaigns, we found a number of those other communities had their own local hospitals. It happens that the most severe cases, the most complicated cases are sent to the hospital I have described. So in attempting to raise funds in those communities, persons who were already contributing to the small local hospitals could not be asked to contribute to the hospital in our particular community; but in raising the funds we were fortunate in that there was a very gracious and generous lady in a nearby community who contributed about $1 million. It would have been impossible, I think, to raise the funds from persons of average incomes around that area under the conditions I have described—to raise the extra $2 million. But due to the Hill-Burton funds and putting on a mortgage loan, the campaign was finally completed and the hospital is built.

As a member of the board, I know we assumed there would be an occupancy possibly of 60 percent for the period of a year or 2 years, or 3 years, and there would be a very important responsibility on the part of the trustees to somewhere get the funds that would be lost through the operating expenses on an income of less than that.

It happens that the demands and needs are so great that although it was built about 15 months ago and ready for occupancy, the average occupancy now, I am told, is about 80 percent and there are periods when people have to wait for beds.

I think it is the best indication, I personally know of, of contributions over a wide area that could not have been made otherwise.

PERCENT OF OCCUPANCY NECESSARY TO BREAK EVEN FINANCIALLY

Mr. BUDGE. In your experience, then, what percentage of occupancy did it take for you to break even in the operation of the hospital?

Mr. LARMON. In that particular hospital, it would be an average of somewhere around 75 to 80 percent, I think. At the present time it is in the black and I think in this case it is due largely to the need and the drawing power of the excellent specialists on the staff and to an extent the fact that the area served has only small local hospitals without specialists available.

Dr. CRONIN. May I comment for just a minute on Mr. Budge's question? As Mr. Larmon has indicated, about 75 to 80 percent is the level at which they can operate in the black. I would like to point out that that hospital is a 158-bed hospital, and a hospital of that size can be expected to run on an occupancy rate of approximately 75 to 80 percent. Beyond that, that hospital is overloaded as far as the community is concerned. Hospitals of smaller size do not run an occupancy of 75 to 80 percent; they cannot run an occupancy of that figure. If they do, they are overloaded. And there are tables that are generalizations that are established by the leading authorities in the country and were published at one time by the Commission on Hospital Care, which indicate the expected average occupancy of hospitals of various sizes from 30 beds up. In a 50-bed hospital, for example, the occupancy range will run someplace between 57 and 66 percent. A hospital of that size that is occupied at 80 percent, in the opinion of all of us in the hospital field, is not large enough to serve the community in which it is located; because they do not have the range of services that these larger hospitals have.

Mr. BUDGE. The reason I asked that question is that I was interested in the remarks of the gentleman from Kansas which the chairman quoted yesterday.

Now assume that smaller hospitals have an occupancy of 44 to 50 percent, are their revenues sufficient to operate them in the black?

Dr. CRONIN. Their operating costs are much lower than those of a larger hospital.

Mr. BUDGE. But are their revenues sufficient to operate them in the black?

Dr. CRONIN. By and large, the revenues are adequate to operate them. They do not make money and it depends an awful lot on where they are located. If they are in an agricultural area, did they have a good crop that season, and all that type of thing; because when the crop fails in an agricultural area, not only do the hospitals have trouble, but so also do the grocery stores and all of the other activities in that area.

Mr. LARMON. May I add one correction to my figure? I believe the 75 to 80 percent occupancy that I referred to does not include pediatrics nor the maternity ward, where there can be variations in the specialty area.

Mr. FERNANDEZ. As a corollary to what you said about the difference between larger hospitals and smaller hospitals so far as the rate of occupancy is concerned, is it not true, Doctor, that the larger

hospital could expect to operate efficiently and be self-sustaining, whereas, the smaller hospital, and particularly in rural areas, can hardly be expected to be self-sustaining? Is not that true?

Dr. CRONIN. I think that is a fair statement.

Mr. FERNANDEZ. And by the same token, the large hospital when completed can usually be immediately put in operation, while the small hospital is sometimes weeks getting started? That is true; is it not?

Dr. CRONIN. That is correct.

Mr. FERNANDEZ. Has that been your experience in administering this law?

Dr. CRONIN. I think every hospital administrator and people connected with hospitals recognize that.

Mr. BUDGE. The only interest I have is in not expending money for facilities which cannot be operated. And if what this Carl Lamley says is correct in his area, apparently a lot of the smaller hospitals, or at least some of the smaller hospitals, will have to close unless they get other revenues. Where would they get the revenues? I suppose it would be by contribution in the area.

Dr. CRONIN. You get it from two places. One is contributions in the area and the other is through taxation and bond issues in governmental hospitals.

Mr. BUDGE. Apparently in this instance in Kansas they may be unable to get those revenues in order to keep the hospital going, if what he says is correct.

Dr. CRONIN. I won't say what he says is correct or incorrect; I am just not acquainted with the facts as he presents them. I am very definitely acquainted with the experience of the Hill-Burton program; 1,540 projects have been opened and are operating, and only 5 are closed.

CURRENT PERCENTAGE OF OCCUPANCY

Mr. BUDGE. Can you give to the committee an estimate of the percentage of occupancy of hospitals over the Nation as of this year?

Dr. CRONIN. We can get that from the American Hospital Association published data, which they publish each year. It reflects the previous year as reported to them. It is quite a voluminous document.

Mr. BUDGE. I just wanted the average percentage for the Nation. That would not be very voluminous.

Dr. CRONIN. I think that figure would not be significant, if it were not identified as to the size of the hospital.

Mr. BUDGE. Let us identify it, then, as to the size of the hospital—under 50 beds, between 50 and 100 beds, and over 100 beds. That would be a reasonable breakdown, would it not?

Dr. CRONIN. It would be a reasonable breakdown, and I would be more than glad to do it.

I can show you here the average occupancy in size of hospital. This table is from the report of the Commission on Hospital Care and indicates the expected percentages of occupancy from a 10-bed size hospital up to 500 beds.

Mr. BUDGE. Let us get what the actual occupancy has been in those three categories, and insert that in the record.

Dr. CRONIN. I will be glad to do it. And I am sure the interpretation of it will take into consideration all factors involved in occupancy rates.

(The requested information follows:)

Percent occupancy—General and special short-term civilian hospitals (including governmental and nonprofit and proprietary hospitals), by size of hospital

Bed size:	Percent occupancy
Under 50	56.2
50 to 99	66.1
100 to 249	73.9
250 and over	78.6
Total	72.5

Source: Hospitals (Journal of the American Hospital Association), June 1953, part II, hospital utilization, table II.

LIMITATION ON USE OF OCCUPANCY RATE STATISTICS

Dr. MASUR. May I interpolate one comment? In our discussion yesterday, I believe it was brought out that to use occupancy rates there were certain limitations.

Mr. BUDGE. You mean so far as your program is concerned?

Dr. MASUR. I am talking in general of hospitals, without regard to Hill-Burton.

Mr. BUDGE. So far as the actual operation of the hospital is concerned, after it is built, the fiscal situation must be to some extent reflected by the percentage of occupancy.

Dr. MASUR. That is right; but, for example, the rapidity of turnover of patients is a cost factor which would not necessarily be reflected in the occupancy rate. And, for example, the nature of the cases that are occupying beds, whether they are simple cases or complicated cases, as in the instance cited by Mr. Larmon. And perhaps most important on the point you are raising is the capacity of patients to pay for services rendered in some areas, where the population to a greater degree is in the enrollment, in insurance programs such as the hospital and surgical program of the Blue Cross, the hospital is assured of something approximating cost. In some areas, such as Connecticut, Minnesota, and others I could cite you, there are certain inabilities, such as welfare cases which come in, which the State or county, or the State and county, will pay the cost by act of the legislature. Therefore, the capacity of persons to pay in this occupancy situation is a very important factor in what you refer to as breaking even.

May I cite one of the interesting developments I ran across recently in a State where the director of the Hill-Burton program has had a cooperative program that is practically on the Blue Cross basis, and prior to the opening of the institution in the town, particularly a rural area where the Blue Cross subscription is likely not to be high, they put on a very vigorous, active campaign to enroll patients in the hospital in order to assure the hospital, that has the business of providing beds, will have enough insurance to cover the cost; otherwise a hospital may have a high rate of occupancy, but the inability of persons to pay for care, would have a very serious reflection on the way the hospital was run.

Mr. BUDGE. All those things that were talked about yesterday are included in the national average, and I think would average out pretty well throughout the United States.

Mr. BUSBEY. May I add one thing to the remark Dr. Cronin made in regard to taking into consideration all the factors in looking at the average occupancy figures.

It is a matter of the perspective and your position in a situation as to how you look at some of these things and interpret them. I think it would have to be left to the judgment of the members of the committee as to whether their interpretation would coincide with yours or not. I have no intention of doing it, but I believe it would not be difficult, if I wanted, when we have outside witnesses come before us, to have an individual come before the committee who was an authority on hospitals who would put a great deal of emphasis on the occupancy rate in connection with consideration of building a hospital of a certain size in a community, and the effect of the occupancy rate from a financial point of view.

Dr. CRONIN. Mr. Chairman, with reference to my remarks and the interpretation of them, I did not mean to indicate to the committee what they should or should not do. I did mean, in reference to establishing that national average figure and reporting it that, at the same time, the factors which surround the arriving at a national average figure, and as that national average occupancy figure is interpreted by the authorities in the field, as represented by the American Hospital Association and the authorities in the field of hospital operations, I think would lend very much information which is of value to anyone who was to make a determination of the utilization of occupancy rates.

KANSAS PROJECT NO. 11

Mr. BUSBEY. At the bottom of page 18 of the task force report, under the heading "Overexpenditures," they state:

> On May 11, 1953, the grant-in-aid auditors reported the withholding of $52,967.20 by the hospital from the contractor on Kansas project No. 11, pending a court decision as to whether it was payable to the insolvent contractor or to the bonding company.
>
> Apparently disregarding this report the Public Health Service certified final payment of $15,439.12 on June 23, 1953.

Doctor, can you, or one of your staff who is present this morning, review the developments prior to final payment on Kansas project 11 for the benefit of the committee?

Dr. CRONIN. We will be glad to attempt to, sir.

I know something about that type of situation. The Public Health Service in certifying the money certifies Federal funds to the State or the project sponsor.

We do not have relationship with the contractor. If the contractor was in litigation or dispute with his bonding company, or the sponsor was having trouble with the contractor, I would assume the bonding company would act in the place of the contractor. As to the amount of Federal money going to the project we would be, at least, in my opinion, entirely justified in having the Federal money go to the State and to the sponsor.

The problem between the sponsor and the contractor is a problem that arose between them, and we have no jurisdiction over it.

Mr. BUSBEY. Regardless of any litigation, you interpret it as the Federal responsibility to pay the funds regardless of where they are to go, or any exception the auditor might make?

Dr. CRONIN. No, that is not correct, Mr. Chairman. The Federal Government's obligation, as the program operates, is to pay the Federal money out for identified costs of work performed, and if the work was performed and appropriate documents were presented to the Public Health Service via the State, if the work was performed and certified to, the Federal Government has the obligation under the law of paying for that work performed.

Now, as far as the sponsor is concerned with the contractor, the Federal Government will not get into that situation in the case of litigation.

MARYLAND PROJECT NO. 27

Mr. BUSBEY. At the top of page 19 of the report just referred to it states:

> The site for Maryland project No. 27 was purchased from the county commissioners, but no evidence could be found of payment. When the item was reported to the sponsor and the State agency the amount was reduced to $800. This was said to represent the cost to the Health Center Association which was the fund-raising organization. There is still a question as to whether the site was actually donated.

Do you recall if there was any question as to the donation of the site for Maryland project No. 27 and what the final decision was?

Dr. CRONIN. I do not recall that project, Mr. Chairman. We can look it up for you and put it in the record.

Mr. BUSBEY. All right, thank you.

(The matter referred to is as follows:)

CAROLINE COUNTY HEALTH CENTER, DENTON, MD., PROJECT NO. 27

The health center was sponsored by the county commissioners of Caroline County. The total cost of the project was $63,724.39 with a Federal share of $26,873.17 (rate of participation 44 percent). At the time the project was approved, the applicant listed the cost of the site at $1,500. In a revised claim after the project had been completed, the site cost was reduced to $800.

At the time of the audit the county commissioners were unable to produce any financial records to show that the county had actually dispersed the sum of $1,500 or any other amount for the purchase of the lot. Unless the county commissioners can show that the amount of $800 or some other amount was actually paid for the site, the amount of Federal participation will be reduced by $352, which is the Federal share of the claimed cost of the site, $800.

The project is still pending and the matter will be settled as soon as the findings are completed.

ORIGINAL AND CURRENT ESTIMATES OF PER BED COSTS UNDER PROGRAM

Mr. BUSBEY. Doctor, would you give the committee a comparison of the estimates of the cost per bed and the number of beds required which were made by the Surgeon General when the original legislation was being considered, compared with current estimates?

Dr. CRONIN. We would be glad to submit that for the record.

Mr. BUSBEY. I think a statement would be very interesting to show what the costs were when he originally estimated them.

As I recall, from the testimony on the original legislation it was from $3,500 to $4,000 a bed, and at the present time it is in the neighborhood of $16,000 per bed. I think that is correct.

Dr. CRONIN. Your latter figure is correct. The first figure I would have to look up. I would assume offhand it is quite low.

I would like to point out, too, Mr. Chairman, that that $16,000 a bed refers to general hospitals.

(The matter referred to is as follows:)

The cost of general hospital construction was estimated by the Public Health Service in 1945 at $6,000 per bed.[1] This estimate reflected typical practice. Data for construction in this period of two large new hospitals providing complete services shows a unit cost of $10,000 per bed.

The cost index compiled by the Department of Commerce shows that the cost of general construction has about doubled during the past decade. The early estimates, therefore, represent a range of from $12,000 to $20,000 per bed at current costs. The recent average cost experience of $16,000 per bed on general hospitals built with Federal assistance reflects more complete services and more complex equipment than in earlier practice.

There was no comprehensive estimate of unmet need prior to surveys under the act of 1946. Based on 1943 data, the Surgeon General estimated a total need of 519,100 additional beds, exclusive of beds for chronic care.[2] Total need for chronic beds, at 2 beds per 1,000 population, then amounted to 268,000 beds, with very minor existing facilities. The first State plans showed a need for 908,000 additional beds.

ATTRACTING DOCTORS TO RURAL AREAS

Mr. BUSBEY. Do we still have the same need for attracting doctors to rural areas as we had a few years ago, Doctor?

Dr. CRONIN. Because of the experience in the hospital survey and construction program and the placing of hospitals in rural communities a number of physicians have been attracted to those rural areas. That is particularly true according to reports that are coming to us through the regions from State agencies.

There undoubtedly still is some need in the rural areas for physicians. We depend entirely upon the information that we can gather from such sources as our State agencies, from the medical organizations, and so forth.

Very, very frequently, in the administration of the program, in my position as Director of it at the Federal level, physicians do come to the office and say, "How can I get a hospital in a rural area? I am thinking of going out to such and such an area to practice if the community wants me to, but I do not want to go there if they do not have the facilities with which to practice medicine the way I want to practice."

In my opinion there are still places which do need hospital facilities and physicians.

Mr. BUSBEY. I apologize for monopolizing all of the time of the interrogation yesterday, and so far today. I might say that I do have some additional questions that I propose to ask, but to break it up a little bit I am going to stop at this point and turn it over to the other members of the committee. Mr. Budge?

MONTHLY OBLIGATIONS 1953 AND 1954

Mr. BUDGE. Doctor, would you insert in the record a tabulation of the obligations by month for the fiscal year 1953, and thus far for the fiscal year 1954?

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[1] Senate hearings (Committee on Education and Labor) on S. 191 (79th Cong.), February–March 1945, p. 95.
[2] Ibid, p. 61.

Dr. CRONIN. Yes, I would be glad to do that. Is that the fiscal year 1953, or 1954 fiscal year funds? You are referring to the fiscal year funds?

Mr. BUDGE. Total obligations which you have incurred and we should have, also, from what appropriation the funds were obligated. What we seek to get is your actual total obligations by month.

Dr. CRONIN. You want a chronological tabulation of the obligations by month?

Mr. BUDGE. For the fiscal year 1953 and thus far for 1954.

Dr. CRONIN. Yes, sir.

(The matter referred to is as follows:)

Table showing by months rate of obligations incurred during fiscal years 1953 and 1954 under appropriation "Grants for hospital construction, Public Health Service."

During fiscal year 1953		During fiscal year 1954	
Month	Amount	Month	Amount
July	$3,496,102	July	$4,054,035
August	9,487,565	August	9,409,148
September	2,743,310	September	9,164,913
October	11,797,278	October	9,972,016
November	2,760,226	November	4,356,525
December	7,909,636	December	2,887,880
January	3,057,073	January	3,465,951
February	5,486,128	February	3,891,156
March	5,887,956	March	3,308,865
April	2,555,820	April	4,004,887
May	4,206,490		
June	8,688,256	Total	[2] 54,515,376
Total	[1] 68,075,840		

[1] Obligations incurred during fiscal year 1953 were out of 1952 and 1953 funds.
[2] Obligations incurred during fiscal year 1954 were out of 1953 and 1954 funds.

UNOBLIGATED BALANCE END OF FISCAL YEAR 1953

Mr. BUDGE. What was your unobligated balance at the end of the fiscal year 1953?

Dr. CRONIN. If I understand your question correctly, Mr. Budge, the balance available in the subsequent year is $34,370,417.

Mr. BUDGE. That would represent what, Doctor, so far as the availability of funds for the program is concerned?

Dr. CRONIN. That would represent a sum of money which, in the aggregate across the country was the balance which had not as yet been obligated by all the States for hospital construction.

However, project sponsors are working against that balance, and as their planning and construction work is completed and they can submit certification, as they do through the States, we will be in position to pay out that money.

I should differentiate that from the projects which are under construction and the Federal funds that are paying for the construction as completed.

Mr. BUDGE. That is what you call an unliquidated obligation, is that right?

Dr. CRONIN. That is right.

Mr. BUDGE. And that figure is what?

Dr. CRONIN. As of the moment?

Mr. BUDGE. Yes; I think we should have that as of the current date.

Dr. CRONIN. It is approximately $82 million. We can put that figure in. That changes from day to day.

(The matter referred to is as follows:)

Table of unliquidated obligations as of Mar. 31, 1954

Fiscal year	Obligations	Liquidations	Unliquidated balance
1948	$74,686,976	$74,124,601	$562,375
1949	74,901,451	73,468,242	1,433,209
1950	149,871,151	146,205,606	3,665,545
1951	84,793,395	79,365,973	5,427,422
1952	82,281,721	67,803,812	14,477,909
1953	62,707,204	29,047,867	33,659,337
1954	28,751,261	5,660,946	23,090,315
Total	557,993,159	475,677,047	82,316,112

UNLIQUIDATED OBLIGATIONS

Mr. BUDGE. Now, according to the task force report, they list unliquidated obligations on the 31st of January 1954, as follows: fiscal year 1948, $604,759; fiscal year 1949, $1,686,129; fiscal year 1950, $5,790,886; fiscal year 1951, $7,468,578; fiscal year 1952, $19,874,112; fiscal year 1953, $52,009,005; and fiscal year 1954, $60,877,494, for a total in unliquidated obligations of $148,310,963.

Are those figures correct?

Dr. CRONIN. Mr. Budge, those figures that you started to quote representing the unliquidated obligations for the fiscal years are correct from the fiscal year 1948 through the fiscal year 1953. The figure for 1954, however, quoted at $60,877,494, properly should be about $25 million.

Mr. BUDGE. That would be as a result of payments which have been made subsequent, then, to January 31, 1954; is that right?

Dr. CRONIN. On January 1, 1954——

Mr. BUDGE. January 31st is the date.

Dr. CRONIN. On January 31, 1954, that figure should be about $25 million if it is obligations. If it is balances, it may be a different figure.

Mr. BUDGE. Well, it is the unliquidated obligation figure to which you just referred a few moments ago.

Dr. CRONIN. The unliquidated obligation figure for that fiscal year 1954 as of January 31 is about $25 million. It is just under $25 million.

Mr. BUDGE. Was it at that figure on January 31, 1954?

Dr. CRONIN. Yes, sir.

Mr. BUDGE. That is quite some variance from the task force report, Mr. Chairman. I think we ought to ask them where they arrived at this figure of $60 million.

Dr. CRONIN. It is exactly $24,478,138. That represents the obligations incurred against the fiscal year 1954 money.

Mr. BUDGE. That is as of January 31, 1954?

Dr. CRONIN. Yes, sir. I would be glad to furnish you with this table that shows that.

Mr. BUSBEY. May I see that table?

Mr. BUDGE. Now, explain for the committee's benefit, particularly my own, just what the difference is between unliquidated obligations and unobligated balances?

Mr. KELLY. Mr. Budge, from the figures you have read it would appear in that fiscal year that the amount is made up of unliquidated obligations and unobligated appropriations. In other words, it is the cash balance in the account, as distinguished from unliquidated obligations.

UNOBLIGATED BALANCES

Mr. BUDGE. They state also that as of January 31, 1954, the unobligated balances were, for the fiscal year 1953, $15,231,363, and for the fiscal year 1954, $40,521,862. Are those figures correct?

Mr. KELLY. Yes, they appear to be correct, except the figure of $40 million has been used twice. It is used both in the unliquidated obligations and in the unobligated balances.

Mr. BUDGE. Would you explain for the committee what the difference is? I think I understand it, but I would like to have it in the record anyway. Would you explain the difference between the expressions "unliquidated" obligations and "unobligated balances"?

Mr. KELLY. The general explanation for all Government financing is that at the time you enter into a contract you obligate the Government to pay out money in the future it is reported as an obligation against the appropriation account.

Liquidation against that account is the actual disbursement of cash so, at any one time in the United States Treasury there will be a great deal of cash on hand which the Government is obligated to pay out, but which they have not disbursed yet.

Mr. BUDGE. Is that figure in excess of $100 million?

Mr. KELLY. The unliquidated balance, that is right.

Mr. BUDGE. Then explain to us what your unobligated balance is, and what the amount is at the present time?

Mr. KELLY. The unobligated balance is an appropriation which has been made by the Congress of the United States, which empowers the executive branch to enter into contracts, but which has not yet been used for that purpose.

Mr. BUDGE. Now, what is the figure as of January 31, 1954, for the unobligated balance?

Mr. HILSENROTH. $55,753,225 is the unobligated balance on January 31, 1954. That is chargeable to two fiscal year appropriations, the fiscal year 1953 and the fiscal year 1954.

RESCISSION BY 82D CONGRESS

Mr. BUDGE. I note that funds for this program were rescinded in the 82d Congress, certain unobligated funds, were they not?

Mr. HILSENROTH. I beg your pardon, Mr. Budge. The construction money automatically reverts to the Treasury at the end of the second year of availability.

Funds appropriated by the Congress remain available for a 2-year period for obligation. Thus, we had on January 31, 1954, an unobligated balance of some $15 million in the fiscal year 1953 funds. Those funds which are not obligated on June 30 of this year will lapse and revert to the Treasury at that time automatically. No

action would seem to be indicated by the Appropriations Committee in that connection.

Dr. CRONIN. Mr. Budge, referring to the rescission in last year's action of Congress——

Mr. BUDGE. Is that last year now, or the year before?

Dr. CRONIN. Last year. That rescission pertained only to the survey and planning money which had been appropriated.

Originally there was $3 million authorized for appropriation, and $1,800,000 of that was appropriated. The bulk of that was used by the States on a matching basis, but the Government, or Congress, last year rescinded the remaining money in the Treasury, and we now have no survey and planning funds. That rescission that you referred to is directly related to the survey and planning money, and there was no rescission of any other construction grant money, and there has been none in the program.

CURRENT UNOBLIGATED BALANCE

Mr. BUDGE. I would like to have one more figure. What is the unobligated balance as of now?

Mr. HILSENROTH. As of March 31, 1954, the unobligated balance out of fiscal year 1953 funds is $12,292,796.

On the same date, against the 1954 fiscal year appropriation the unobligated balance was $36,248,740, for a total unobligated balance of $48,541,536.

Dr. CRONIN. I would like to point out on that figure, Mr. Budge, that of the $12 million that is currently residing as unobligated——

Mr. BUDGE (interposing). $12 million, the figure just read?

Dr. CRONIN. No; $12 million out of the 1953 funds that are currently unobligated, in my opinion, will be, for the most part, completely obligated by the 1st of July, and the $36 million currently unobligated from 1954 funds still has another full year after the 1st of July under the statute under which we operate to be obligated.

Mr. BUDGE. I assume, then, that you would obligate first the fiscal year 1953 funds, so that they would not revert to the Treasury and subsequently obligate the fiscal year 1954 funds?

Dr. CRONIN. In our experience with the program, and it is similar in each year, because of the $607,500,000 which the Congress has appropriated to this program, less than $1 million has been actually returned to the Treasury at the end of the 2-year statute limitations on any one fiscal year allotment. So we anticipate that the States will cover this $12 million between now and the 1st of July. In fact, I know of projects which are in the paper-processing stage which will cover a great deal of that money.

Now, as far as the next fiscal year is concerned, which is the last half of the 2 years allowable for the fiscal year 1954 funds, all of the States are planning on the utilization of that money through projects which are either in preparatory stages or in the stage of submitting applications and subsequent approval, and so forth.

Mr. HILSENROTH. May I add something, Mr. Chairman, which I believe will help to clarify this a little bit?

While we have to show an unobligated balance of some $12 million against the fiscal year 1953 money, and $36 million against the fiscal year 1954 money, I think, in all fairness, we should point out that as

of the same date, on March 31, out of the 1953 appropriation of $75 million there was promised at that time to project sponsors $73,239,000. In other words, less than $2 million of the so-called $12 million balance could be considered as available.

Similarly, out of the 1954 appropriation of $65 million, $51,543,000 had been promised out to project sponsors, even though we show obligations of only $28,751,000.

Now, the reason for that is the time it takes in getting a project from its initial approval stages until you get to the final approval stage, which is the construction stage.

You only obligate, in the Federal sense, when you are about to go under construction, and in the interim many months have elapsed during which the project sponsor is required to raise his funds, hire an architect, and proceed with detailed drawings and specifications.

For that reason we seem to show from year to year this huge unobligated balance, which actually is not a free balance because a great percentage of these funds have been promised out to local communities and project sponsors by the States, and the States are working against these so-called balances.

USE OF UNOBLIGATED FUNDS AT END OF YEAR

Mr. BUDGE. Insofar as the unobligated funds for fiscal year 1954 are concerned, they will be funds which can be expended in addition to the funds which are appropriated for the fiscal year 1955 in carrying out the program. That is correct, is it not?

Mr. HILSENROTH. Yes; that has always been true in the program, to have a carryover.

Mr. BUDGE. So, in determining the extent of the program during the fiscal year, the committee should look at the unobligated balance of the 1954 appropriation, at the end of the fiscal year 1954, and add that figure to the figure contemplated for appropriation for the fiscal year 1955 in arriving at the total available for the program for that fiscal year. That is correct, is it not?

Mr. HARLOW. It is with one exception, Mr. Budge, and that is that what you add at the beginning of the year you should also subtract at the end of the year as the carryover into subsequent years, so that, on an average if we had an annual appropriation of $75 million we would have an annual program of $75 million, split up between the previous year's appropriation and the current year's appropriation.

Mr. BUDGE. So far as the 12-month period between July 1, 1954, and July 1, 1955, is concerned, the funds which will be available to carry out this program would be the total of the remaining fiscal year 1954 appropriation, and the appropriation for the fiscal year 1955; is that not correct?

Mr. HARLOW. In a gross sense, yes, sir, the availability is there, but the ability of the sponsors to get their contracts made within the fiscal year period is not there.

Mr. BUDGE. Well, I appreciate that.

Mr. KELLY. That is true, but with respect to the unallocated funds as distinguished from the allocated funds, the moneys available to initiate projects in the fiscal year 1955 is approximately only the amount appropriated. In other words, this fiscal year 1954 appropriation is now almost completely allocated to sponsors to initiate projects. Some

of these funds will not be obligated until the next fiscal year when they are ready to start construction, and if there were no funds appropriated in the fiscal year 1955 there would be no projects initiated in the year 1955.

Mr. BUDGE. Well, of course, that would depend upon what you mean by the word "initiate." Certainly there would be no bar against the actual construction if the time element could be overcome and the applications came in rapidly enough and they could be processed rapidly enough, the funds appropriated for 1955 plus any balance for 1954 could all be obligated in the fiscal year 1955.

Mr. KELLY. Except for the time lag involved.

Mr. BUDGE. Yes.

Doctor, I wish you would furnish for the record a statement of what you expect your unobligated balances to be, both for the fiscal year 1953 funds and the fiscal year 1954 funds, as of the end of the current fiscal year.

Dr. CRONIN. We will be glad to do that. There will be no unobligated balance, or a very small amount of balance for 1953.

Mr. BUDGE. Because you spend those funds first?

Dr. CRONIN. If they did not spend them the States would get them covered because the statute of limitations runs out at midnight on June 30, 1954.

Mr. BUDGE. Yes.

Dr. CRONIN. My guess is that there will be less than $300,000 left over.

(The following information was later supplied.)

Estimate of unobligated balances as of June 30, 1954, under appropriation "Grants for hospital construction, Public Health Service."

Out of 1953 funds	[1] $196,809
Out of 1954 funds	[2] 30,000,000
Total	30,196,809

[1] These funds will not be available for obligation after June 30, 1954; and figure includes $170,000 for the District of Columbia and $26,809 for the Virgin Islands.

[2] This amount is available for obligation in fiscal year 1955 as prescribed by Public Law 725, 79th Cong., as amended. As of Apr. 30, 1954, however, only $13,329,000 in 1954 funds could be considered as free or available for new construction since $51,671,000 in projects had been approved either in the initial or final stages as of that date.

FUNDS RESCINDED BY 82D CONGRESS

Mr. BUDGE. Now, I note on page 120 of the committee print a footnote No. 1 which says: "Excludes $75 million rescinded by Public Law 253, 82d Congress." What does that mean?

Dr. CRONIN. I would like to ask Mr. Harlow to check me on this, but it is my understanding that the 82d Congress appropriated $150 million for hospital surveys and construction. That was the year of the omnibus appropriation act, and the action of Congress was completed, if I remember correctly, on September 9, 1951.

In that omnibus appropriation act there was a section 1214 which advised the President that he was to find $550 million in savings, but it did not advise the President where he was to find those savings.

After due deliberation of the President with his staff, and so forth, the decision was rendered that of the $150 million appropriated for this program, $75 million of it was to be placed in reserve.

Subsequent to that time and, on the return of Congress, discussion was held on the floors of Congress, and an additional $10 million was appropriated to the program. So that, in the fiscal year 1951 we finally had a total of $85 million for the program, and that is what that footnote has reference to because that $75 million in actuality then was first placed in reserve by the President, and then finally rescinded through Public Law 253 of the 82d Congress.

Mr. BUDGE. That is what I was trying to get at a few minutes ago. I could not find the reference for the moment, but I thought that there had been a rescission in the 82d Congress, and I guess this was it.

Dr. CRONIN. This was the one. There was a rescission last year on the survey and planning money.

RECONCILIATION OF TASK FORCE AND PHS UNLIQUIDATED OBLIGATION FIGURES

Mr. BUDGE. I wish someone would explain to me this variance between the task forces' figure and your figure regarding unliquidated obligations. Mr. Kelly said the $40,521,862 figure was used twice. Assuming that this is true the figures would still not seem to coincide with the task force report. Can someone enlighten me as to that?

Mr. HILSENROTH. Yes, Mr. Budge, if this is the committee staff report.

Mr. BUSBEY. It is the report of the task force that was employed by the committee.

Mr. HILSENROTH. The unliquidated obligations for the fiscal years, 1948, 1949, 1950, 1951, 1952, and 1953 are identical with the figures furnished to the committee showing the unliquidated obligations as of that date.

There is a question, however, on the figure for the fiscal year 1954, which shows $60,877,494 as the unliquidated obligation.

Actually, that is the figure furnished the staff task force as the unliquidated balance, rather than the unliquidated obligations, because the obligations on that date, against 1954 funds were only $24,478,138.

Therefore, the figure for unliquidated obligations could not be $60,877,494.

The anticipated obligation for the full $65 million in the fiscal year 1954 funds is $65 million. We anticipate that we will be able to obligate the full amount.

We had previously liquidated as of January 31, 1954, some $4,122,506. That left an unliquidated balance of the $60 million figure. We had $65 million, and we had previously liquidated $4,100,000. We, therefore, have an unliquidated balance out of the $65 million of $60,877,494. What I am trying to say is that this last line is the unliquidated balance figure.

Mr. BUDGE. That is how it is labeled.

Mr. HILSENROTH. In the task force report, but it is not an obligation figure. It could not be an obligation figure because on that date we had less than $25 million obligated.

Mr. BUDGE. There is a difference of some $36 million which I think the committee should explore.

Mr. KELLY. I think my original statement was correct and agrees with what Mr. Hilsenroth said, that instead of the last figure being

the unobligated balance of that appropriation it is the undisbursed balance of that appropriation.

Dr. CRONIN. It is the unpaid-out balance.

Mr. BUDGE. Taking the committee staff figure of $60,877,494 of unliquidated obligations as of January 31, 1954, and subtracting from that the figure that you have just furnished of $24,478,138, leaves a figure of $36,399,356. What does this last figure represent?

Mr. KELLY. I believe that is the unobligated balance of the appropriation as of January 31.

Mr. BUDGE. Just a moment ago you said that figure was $40,521,862.

Mr. HARLOW. I doubt that that figure represents anything because you are not subtracting like from like.

Mr. BUDGE. I am subtracting the figure you have just furnished as being the unliquidated obligations from the task force figure for the same item.

Mr. HARLOW. But the committee staff figure is not correct in the first instance.

Mr. BUDGE. Nobody has explained what the difference is yet.

Mr. KELLY. Was your figure $36,399,356?

Mr. BUDGE. $36.399,356.

Mr. HARLOW. We have two things. We have an appropriation of $65 million and have incurred obligations of $24 million, which leaves an unobligated balance of $41 million.

Mr. BUDGE. You were talking about the unliquidated obligations?

Mr. HARLOW. We had unliquidated obligations of $20 million on January 31. That means $20 million of projects had not been paid off as of that date.

Mr. BUDGE. I ask, Mr. Chairman, that the Public Health Service put in a statement to clarify this because the colloquy so far has not clarified it in my mind.

Dr. CRONIN. We will be glad to do so.

(The requested information follows:)

Statement showing appropriations, obligations incurred, unliquidated obligations, and unobligated balances for each fiscal year under appropriation "Grants for Hospital Construction, Public Health Service," as of Jan. 31, 1954

Fiscal year	Amounts appropriated	Obligations incurred	Unliquidated obligations	Unobligated balance	Amount lapsed
1948	$75,000,000	$74,686,976	$604,759		$313,024
1949	75,000,000	74,901,451	1,686,129		98,549
1950	150,000,000	149,871,151	5,790,886		128,849
1951	85,000,000	84,802,227	7,468,578		197,773
1952	82,500,000	82,284,558	19,874,112		215,442
1953	75,000,000	59,768,637	36,777,642	$15,231,363	
1954	65,000,000	24,478,138	20,355,632	40,521,862	
Total	607,500,000	550,793,138	92,557,738	55,753,225	953,637

The figure of $148,310,963 contained in the Task Force report would appear to represent the sum of the unliquidated obligations column ($92,557,738) plus the unobligated balance column ($55,753,225).

PUBLIC HEALTH PERSONNEL IN INDOCHINA

Mr. BUDGE. Mr. Chairman, I would like to go a little bit afield for just a moment while the Assistant Secretary is here and while the Assistant Surgeon General is here, and ask this question in view of the recent news relative to Indochina.

At a previous hearing I requested the Public Health Service to furnish the committee with a statement as to the personnel budgeted for fiscal year 1954 for Foreign Operations Administration assignments outside the United States. The statement furnished shows a total of 263 persons of the Public Health Service in that category. I notice that in the material furnished, which appears at page 1803 of the transcript, this statement:

Mutual defense financing defense support, economic and technical assistance, Formosa and the Associated States of Cambodia, Laos, and Viet Nam, Executive (transfers to Health, Education, and Welfare)—personnel detailed to Formosa, etc., under point 4 program.

And then under the heading "Number of positions" there are 27 people who have been assigned to that area. What is the status of those people now in the light of current developments in that area?

Dr. DEARING. We have no information from the Foreign Operations Administration, under whom they work, of any change of status. We are naturally interested in what is or might be happening to them, but as far as we know they are continuing to work under the circumstances which have from the beginning of that program not been too peaceful, and the areas where they can work have been limited and changed from time to time because of what they call euphemistically security problems.

Mr. BUDGE. So far as you know then, the 27 people are still in that area and still doing public health work in that area?

Dr. DEARING. Yes, sir, so far as we know.

Mr. BUDGE. When did you last get reports from these people?

Dr. DEARING. I will have to find out when our last formal reports have been. Our Division of International Health is in daily contact, practically, with the Foreign Operations Administration health staff, and they do get periodic reports.

Mr. BUDGE. I am personally somewhat disturbed that Public Health Service personnel should continue to be assigned to an area where the situation is as fluid and as dangerous as it is in that area.

Dr. DEARING. That is a part of national policy in connection with the program of the Foreign Operations Administration and of the President, and we are doing our part as is expected of us.

Mr. BUDGE. How often do these people report?

Dr. DEARING. They do not report as individuals because they are under the Foreign Operations Administration, under the mission chiefs in the respective countries. Their reports are handled through FOA, and they comply with FOA rules.

Mr. BUDGE. I would appreciate it, Doctor, if you would furnish us with a statement for the record as to the actual status of those people now.

Dr. DEARING. I shall be very glad to.

(The requested statement follows:)

STATUS OF UNITED STATES PERSONNEL PRESENTLY IN INDOCHINA

There are 6 persons in the health group in Formosa, all of whom are in Taipeh. The status of the Formosa group has remained unchanged except for the pending transfer of a doctor from Formosa to Indochina as Chief of the Public Health Division of the United States Operations Mission to Indochina.

There are 17 people with the health mission in Indochina, with headquarters in Saigon, Hanoi, Hue, and South Viet Nam.

The Department of State accepts responsibility for the security of personnel assigned to the United States Operations Missions abroad. We have been advised that they are cognizant of their welfare and will arrange for the necessary evacuation of United States personnel from areas where their security is in jeopardy.

Mr. BUDGE. That is all, Mr. Chairman.

Mr. BUSBEY. Mr. Fogarty.

LEGISLATIVE HISTORY OF AUTHORIZING LEGISLATION

Mr. FOGARTY. This bill originated in the Senate, did it not?

Dr. CRONIN. The Hospital Survey and Construction Act?

Mr. FOGARTY. Yes.

Dr. CRONIN. That is my understanding.

Mr. FOGARTY. In 1945?

Dr. CRONIN. Action of Congress was completed in August of 1946, and some months before that the origination took place.

Mr. FOGARTY. The legislation was introduced in early 1945?

Dr. CRONIN. In 1945. I think it was S. 191.

Mr. FOGARTY. When it passed the Senate, was there a vote against it?

Dr. CRONIN. To the best of my recollection there was not.

Mr. FOGARTY. In other words, it was passed by the Senate by unanimous vote?

Dr. CRONIN. Yes.

Mr. FOGARTY. When did it pass the House?

Dr. CRONIN. In August 1946.

Mr. FOGARTY. Were there any dissenting votes when it passed the House?

Dr. CRONIN. Not that I know of.

Mr. FOGARTY. It passed the House by unanimous vote?

Dr. CRONIN. Yes.

Mr. FOGARTY. When was it first amended?

Dr. CRONIN. October 25, 1949, by Public Law 380 of the 81st Congress.

Mr. FOGARTY. That was an amendment increasing the authorization from $75 million to $150 million?

Dr. CRONIN. Yes, plus one technical amendment under which the discretion was left in the States in setting the Federal participation percentage.

Mr. FOGARTY. That amendment passed by unanimous vote?

Dr. CRONIN. Yes.

Mr. FOGARTY. It doubled the authorization, increasing it from $75 million to $150 million, and extended the act another 5 years?

Dr. CRONIN. Yes.

Mr. FOGARTY. That was by unanimous vote?

Dr. CRONIN. Yes.

Mr. FOGARTY. When was the next amendment?

Dr. CRONIN. May 1953.

Mr. FOGARTY. Last year?

Dr. CRONIN. Yes.

Mr. FOGARTY. What did that amendment do? Did it extend the act 2 years?

Dr. CRONIN. Yes. It extended the program to June 30, 1957.

Mr. FOGARTY. Still with the same authorization of $150 million?

Dr. CRONIN. There was no change in the basic act at all.

Mr. FOGARTY. It was just a one-line bill, was it not?

Dr. CRONIN. In reality, it was a one-word bill.

Mr. FOGARTY. Changing the expiration date?

Dr. CRONIN. The expiration date under Public Law 380 of the 81st Congress was 5 years and this bill changed the word "five" to the word "seven."

Mr. FOGARTY. And that passed both the House and the Senate by unanimous vote a year ago?

Dr. CRONIN. That is my understanding, yes.

Mr. FOGARTY. Was there any testimony developed in the hearings a year ago in opposition to the extension of this act?

Dr. CRONIN. I did not attend all the hearings, but in reading the reports of the hearings it is my understanding that by far the general consensus of opinion was it should be extended.

Mr. FOGARTY. Was there a unanimous report from the committee on both sides?

Dr. CRONIN. There was.

Mr. FOGARTY. Then there was no opposition in the committee itself either?

Dr. CRONIN. That is correct, sir.

COMMITTEE INVESTIGATORS' REPORT

Mr. FOGARTY. In view of that history of the act the Appropriations Committee investigators, this so-called task force—and by the way, I do not know who they are or what their background is; I do not know if any of them have had any hospital experience or not—but they come in now and recommend a cut from $50 million this year down to $40 million for 1955.

You are justifying an appropriation today for $50 million for 1955, is that correct? That is what is before us as far as the justifications are concerned?

Mr. LARMON. A communication from the President has been received by the Speaker of the House and printed copies are available to the committee. You on the committee would have to inform me if that is on the table at the present time.

Mr. FOGARTY. It is on the table.

Mr. KELLY. The justifications do cover just the $50 million.

Mr. BUSBEY. I might say for the record, Mr. Fogarty, that I can assure the gentlemen on the other side of the table that the committee will go into that before we conclude our hearings.

Mr. FOGARTY. Were you or the Secretary of Health, Education, and Welfare or the President advised of the report of this task force?

Mr. LARMON. I can reply that I have not seen a copy of the report and to my knowledge no one in the Department has.

Mr. FOGARTY. Do you know if the President has or not?

Mr. LARMON. Not to my knowledge. I could not know that.

Mr. FOGARTY. Do you know whether the Director of the Bureau of the Budget has seen a copy?

Mr. LARMON. Not to my knowledge.

Mr. FOGARTY. Do you know if the Secretary of Health, Education, and Welfare has seen a copy?

Mr. LARMON. I will have to reply that I am quite certain she has not.

Mr. FOGARTY. In view of the recommendations of this task force, which would practically scuttle this legislation, from what has been developed here in the last couple days, do you still think that the President is correct in recommending an additional $25 million to the $50 million request that he originally transmitted to the Congress?

Mr. LARMON. I do, Mr. Congressman. The Department very definitely intended in all discussions and by recommendations to recommend that additional appropriation to strengthen and expand the program.

Mr. FOGARTY. I am happy to hear that. And you still take that stand after hearing that this task force has issued a report recommending a $10 million reduction in the $50 million appropriation request?

Mr. LARMON. I do, sir.

CONTACTS MADE BY TASK FORCE

Mr. FOGARTY. Did this task force seek your advice or counsel on this appropriation?

Mr. LARMON. On this appropriation, not of me directly nor, as far as I know, a member of the Department, in regard to a recommendation of a cut in the appropriation. I cannot know completely, of course, the contacts of the task force with others.

Mr. FOGARTY. Do you know if this task force consulted the Secretary of Health, Education, and Welfare in regard to this legislation and appropriation?

Mr. LARMON. I would have to reply, "Not to my knowledge." Members of the task force did have discussions with various members of the Department. I cannot know what took place in each discussion, of course.

Mr. FOGARTY. How many were on this task force on this particular appropriation?

Dr. CRONIN. I do not know, sir. All I know is that one member of the task force was the representative who contacted the division I have charge of for information.

Mr. FOGARTY. What was his name?

Dr. CRONIN. A Mr. Gromel.

Mr. FOGARTY. He was the only one that contacted you?

Dr. CRONIN. The only contact I had with Mr. Gromel——

Mr. FOGARTY. Was he the only one?

Dr. CRONIN. He had a man with him, a Mr. Bauman, who, it was my understanding, was assigned by the General Accounting Office to work with the task force. He and Mr. Gromel came to see me on the first day Mr. Gromel came back again to investigate and seek information.

Mr. FOGARTY. How much time did Mr. Gromel spend with you?

Dr. CRONIN. Mr. Bauman and Mr. Gromel spent approximately 1 hour.

Mr. FOGARTY. Is that all?

Dr. CRONIN. That first day, yes. We did have telephone contacts. Personally I had not more than 3 or 4 telephone contacts with Mr. Gromel. I saw him once and was introduced by him to a Mr. Kottcamp in the cafeteria at noon one day, and I met Mr. Gromel one other time on the street and said hello to him.

Mr. LARMON. I have information that Mr. Gromel and Mr. Bauman were in the Department constantly over a period of months.

Mr. FOGARTY. I wondered if they had contacted you in discussing the recommendations they have made or the facts they have found?

Mr. LARMON. Not in the matter you are considering.

LENGTH OF DISCUSSIONS LEADING TO SUPPLEMENTAL REQUEST

Mr. FOGARTY. This report was issued on April 25. How long have these discussions been going on within the Department—and I presume the White House and Bureau of the Budget—in regard to this additional $25 million for hospital construction?

Mr. LARMON. I cannot know the exact dates, Mr. Fogarty.

Mr. FOGARTY. About how long? A month?

Mr. LARMON. I would assume—and this is guessing—within the last month, but I cannot be accurate there because they may have started earlier.

Mr. FOGARTY. Can you tell us, Mr. Kelly?

Mr. KELLY. I have been in the Department a little over 2 months and I would say some degree of discussion has been going on in the Department ever since I came.

Mr. LARMON. I am sorry. If that is the question, yes. There have been discussions previous to the time Mr. Kelly came in the Department. I thought you meant any crystallization of it.

Mr. FOGARTY. What was the date the Secretary appeared before this committee?

Mr. KELLY. March 23.

ACTION ON PROPOSED AMENDMENTS

Mr. FOGARTY. What has happened to the proposed new legislation which would authorize an additional $62 million? That has passed the House, has it not?

Mr. LARMON. It has passed the House but has not been as yet passed by the Senate.

Mr. FOGARTY. Was there any opposition to that bill in the House committee?

Mr. LARMON. I cannot reply from my own knowledge.

Mr. FOGARTY. Do you know, Dr. Cronin?

Dr. CRONIN. It was unanimously reported out by the committee.

Mr. FOGARTY. Were any votes cast against it when it passed the House?

Dr. CRONIN. It was my understanding it was a voice vote and did pass by voice vote.

Mr. FOGARTY. Have hearings been completed on this bill in the Senate?

Dr. CRONIN. As far as we know the hearings have been completed.

Mr. FOGARTY. But no action has been taken by the committee?

Dr. CRONIN. The Senate committee has not, as I understand it, completed their executive sessions yet.

Mr. FOGARTY. Do you have information as to whether or not they are going to pass it?

Mr. LARMON. I have not and I assume the Department could only guess in regard to that.

REASON FOR $25 MILLION SUPPLEMENTAL

Mr. FOGARTY. The reason for the action of the President now in recommending an additional $25 million is not that he thinks the Senate might not take action on this new legislation or that Congress might not appropriate this additional $62,065,650, is it?

Mr. LARMON. The assumptions in the Department are these: That if the Congress passes the proposed legislation, that would provide for $75 million under this new recommendation of the President and would provide authorization for $62 million under the new legislation. The assumption would be that if the legislation is passed there would be a recommendation for appropriations under the new legislation which in total would not exceed the $112 million which is made up of the authorizations under the new legislation plus the $50 million which appeared in the recommended budget before the President made his new recommendation. In other words, if the legislation is passed, the total appropriation for the hospital construction program with the new amendments would not exceed $112 million.

Mr. FOGARTY. I still do not understand why.

Mr. LARMON. This new recommendation provides for an additional $25 million or a total of $75 million for carrying out the purposes of the Hill-Burton Act without amendment. If the new proposed amendments are accepted, while they provide for authorization for an additional $62 million, the total requested, in all probability, by the Department and by the administration, would be not more than $112 million.

Mr. FOGARTY. If the Congress appropriates $75 million under this act then you are going to amend your original legislation to make that $37 million instead of $62 million?

Mr. KELLY. Mr. Larmon does not have reference to changing the $62 million in the new legislation, but instead of offering a proposed budget for $62 million under that legislation for fiscal 1955 it would be offered as $37,500,000. In the light of the time it would take to get the new legislation to the point where it would be producing hospitals in the various categories, it was the thought to increase the general hospitals in 1955.

Mr. FOGARTY. In other words, back on the 1st of February you thought you could get this legislation in time so that you could spend $62 million next year?

Mr. LARMON. At least a faster start could have been made than seems probable now.

Mr. FOGARTY. So since the 1st of February you have slowed down quite a bit?

Mr. LARMON. With reflection of the time it would take to survey the new program and initiate new projects it was slowed up.

Mr. BUSBEY. Inasmuch as we are discussing this, I wonder if you would agree, Mr. Fogarty, it might be a good idea to put the message from the Bureau of the Budget in the hearings at this point. Without objection, we will put a copy in the record at this point.

(The pertinent portions of the document referred to are as follows:)

THE WHITE HOUSE.
Washington, May 11, 1954.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: I have the honor to transmit herewith for the consideration of the Congress proposed supplemental appropriations for the fiscal year 1955, in the amount of $28,799,761, for the Department of Health, Education, and Welfare in the form of amendments to the budget for said fiscal year.

The details of these proposed appropriations, the necessity therefor, and the reasons for their submission at this time are set forth in the attached letter from the Director of the Bureau of the Budget, with whose comments and observations thereon I concur.

Respectfully yours,

DWIGHT D. EISENHOWER.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington 25, D. C., May 10, 1954.

The PRESIDENT,
The White House.

SIR: I have the honor to submit herewith for your consideration proposed supplemental appropriations for the fiscal year 1955, in the amount of $28,799,761, for the Department of Health, Education, and Welfare, in the form of amendments to the budget for said fiscal year, as follows:

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Budget page	Heading	Original estimate	Change to—	Increase
	OFFICE OF EDUCATION			
656	Promotion and further development of vocational education	$17,500,000	$18,673,261	$1,173,261
	Limitation: Apportionments to the States under the Vocational Education Act of 1946	(17,325,000)	(18,498,261)	
	PUBLIC HEALTH SERVICE			
661	Assistance to States, general	15,039,000	17,665,500	2,626,500
667	Grants for hospital construction	50,000,000	75,000,000	25,000,000

The proposed supplemental appropriation for "Promotion and further development of vocational education, Office of Education," permitting grants to States under the Vocational Education Act of 1946 to remain at the 1954 level, is necessary to insure maintenance of an adequate level of support for education in vocational trades as carried out by States and localities.

The proposed supplemental appropriation for "Assistance to States, general, Public Health Service," will maintain the 1954 level of appropriations for public health grants to States in fiscal year 1955. There is increasing evidence that reductions made in these grants over the past several years have not been compensated for by increased State funds. As a consequence public health work has suffered. The entire increase is proposed as an additional amount to the appropriation, "Assistance to States, general, Public Health Service," in order to provide maximum flexibility to the States and is consistent with the administration's legislative recommendations in the State grant field.

The proposed supplemental for "Grants for hospital construction, Public Health Service," is necessary to increase the number of projects which may be constructed under existing law. At the time the 1955 budget was prepared, including the administration's legislative program, it was intended that the hospital-construction program would be strengthened and expanded through the enactment of new legislation which would broaden and make more specific the purpose for which appropriations may be spent. It now appears that the prospective rates at which the newer types of construction may be gotten underway are considerably slower than originally anticipated. In order to assure that the total volume of hospital construction will not decline, it now is recommended that

the appropriation under existing law be increased. This action will not increase the total appropriation requirements shown in the 1955 budget for hospital construction under both existing and proposed legislation.

These proposed supplemental appropriations were not included in the budget because certain information concerning the effects of appropriations proposed for 1955 on State operations could not be accurately assessed at that time.

I recommend that the foregoing proposed supplemental appropriations be transmitted to the Congress.

Respectfully yours,

ROWLAND HUGHES,
Director of the Bureau of the Budget.

ALLOTMENT FORMULA

Mr. FOGARTY. There has been quite a bit said about the formula. Has the formula been changed since the original legislation was passed in 1946?

Dr. CRONIN. You have reference to the formula relating to the allotment of the money to the States?

Mr. FOGARTY. Yes.

Dr. CRONIN. It has not been changed.

Mr. FOGARTY. Did you or someone else testify that the late Senator Taft had a great deal to do with developing the formula under which we are now operating?

Dr. CRONIN. That was I, sir.

Mr. FOGARTY. Was that in amending the bill on the floor of the Senate or in the committee itself?

Dr. CRONIN. It was my understanding it was the late Senator Taft's contacts with Senator Burton and Senator Hill and the staff of the Senate committee that were responsible for the total wording and so on of the act as it was passed in the Senate.

Dr. DEARING. It was as a member of the Senate Committee on Labor and Public Welfare, which handled the bill in the Senate, that he made his contributions.

Dr. CRONIN. That is correct.

USE OF AVERAGE OCCUPANCY DATA

Mr. FOGARTY. There has been a lot said about average occupancy. Tell me, as a hospital man, just what does average occupancy mean and what does it mean as far as operating in the red or in the black? I want the view of a hospital man, not of an economist, but of a hospital man.

Dr. CRONIN. I cannot qualify as an economist but I have operated hospitals. Average occupancy is a figure that the hospital administrator reports as to the number of patients that he has in his hospital on the average for the year, and those reports usually are sent to the American Hospital Association and they are also called for in relation to some of the tax situations at the State and National level. It is, in my opinion, a rough indication of the number of people actually in that hospital on the average during the year.

From a hospital man's point of view, I fully realize that averages in bed occupancy are the same as averages in anything else. They are not indicative of the whole story. The index of the utilization of a hospital bed is certainly not reflected in the average occupancy of that bed for a year period, because there are times during the year

when your hospital beds numerically are more occupied than at other times during the year, and the figure that is more indicative of the utilization of your beds is a figure that is derived from basically three sets of figures. One is the occupancy rate on any 1 day; another is the turnover rate that you have of patients coming in and being discharged and going out and new patients admitted; and then your index figure, which is the rate that one can expect in that hospital in that particular geographical and cultural setting. Those, in general, are what the hospital administrator regards as the criteria. The average occupancy figure on a yearly basis, in my opinion, does not indicate completely enough the utilization of the beds nor the services rendered to the people in that community at all. Perhaps Dr. Masur would comment further on that. He is also an experienced hospital administrator.

Dr. MASUR. I have nothing to add other than what I have already said about the utilization of average occupancy rate as an indication of hospital services.

Mr. BUDGE. Will the gentleman yield to me?

Mr. FOGARTY. I think we should get this cleared up. The task force seems to put considerable weight on the occupancy rate. We should find out if it means anything or not. Go ahead.

Mr. BUDGE. Doctor, I can well realize that, from your position as administrator of the grants for hospital construction, there are these other features, which to me also are very significant, in addition to the average occupancy figure. But is it not true that insofar as the community being able to continue to operate the hospital, its revenues are directly connected with the average occupancy figure?

Dr. CRONIN. I think the average occupancy figure could be used as an indication for the number of patients in a hospital at any one time. I do not want to be facetious in this matter and do not intend to be, but the number of patient days that are paid for by cash do not necessarily have a direct relationship to the occupancy rate. These hospitals, many of them, furnish indigent care.

Mr. BUDGE. You may have a much better figure than average occupancy. Could you furnish the committee with such a figure insofar as the total hospitals of the country are concerned?

Dr. CRONIN. The figure would have to be related to a single hospital and directly related to the number of patients in that hospital on every day of the year.

Mr. BUDGE. The committee has, and I think the Public Health Service has, a double responsibility, not only to furnish funds to construct hospitals but to construct them in communities and in such a manner that they can continue to operate. That is why it seems to me that the average occupancy figure is of some importance.

Dr. CRONIN. I think the primary responsibility should rest with the community.

Dr. MASUR. May I add two factors over and above the limitations of a single criterion such as occupancy rate. We have made no mention of income or expenditures or services to the community through outpatient services, which are in no way reflected in occupancy rates. As has been brought out in these hearings, that is an increasingly important service to the community.

Another thing that I think is important is the concept of what is referred to as a readiness to serve. The availability of the hospital

in case of peacetime or conceivably wartime disasters is increasingly important and has been recognized by certain States, such as Connecticut and Pennsylvania, whereby the State, through its own appropriation, makes funds available to hospitals in the entire State in recognition of the potential value of the hospitals in cases of emergency.

All told, I think that what we are getting at is that it is quite true that the occupancy figure has some value, but used alone one may arrive at conclusions which could not be validated when bearing in mind the other considerations we have brought out in this discussion.

Mr. BUDGE. If the average occupancy figure is not the figure we should use in attempting to determine whether a hospital can be kept operating after it is built, I wish you gentlemen would furnish us with a yardstick we can use. I have not heard it yet.

Dr. MASUR. The reason you have not heard it, there is no single formula. In our own administration of Public Health Service hospitals, and in our studies of hospitals in general, we have become increasingly aware of the limitations of such expressions as the cost per bed; limitations of occupancy rate; limitations of comparisons in personnel-patient ratio. The students in the field of hospital administration are keenly aware that the indices that we now use do not suffice to indicate the service rendered in a hospital, and we will have to get better criteria to bring to the public the value of our work.

Mr. BUDGE. I hope you can do that and I hope you realize it is the committee's responsibility and your responsibility to be reasonably sure these hospitals can be operated after they are constructed.

Dr. MASUR. Yes, sir.

Mr. FERNANDEZ. Will the gentleman yield? The table mentioned by Dr. Cronin awhile ago which shows the expected percentage of occupancy of a hospital I think is relevant at this point, and if there is no objection I suggest it be made a part of the record.

Mr. BUSBEY. It will be inserted in the record at this point.

(The table referred to is as follows:)

AVERAGE OCCUPANCY AND SIZE OF HOSPITAL

Studies have shown that the average occupancy varies in proportion to the size of the hospital; the larger the hospital the greater the average occupancy. The following table, adopted from the report by the Commission on Hospital Care, indicates the expected percentage of occupancy of hospitals:

Size of hospital (number of beds)	Expected percentage occupancy		Size of hospital (number of beds)	Expected percentage occupancy	
	Low	High		Low	High
10	30	40	75	63	71
20	42	52	100	67	74
30	49	58	150	72	78
40	54	62	200	75	81
50	57	66	300	79	84
60	60	68	500	83	87

STATES RESPONSIBILITIES UNDER THE ACT

Mr. FOGARTY. This task force report, as I read it, is very critical of the entire program, not only of the program but of the administration, and I suppose if it is critical of the program it is critical of the administration of it in the States, because, as I remember, at

the time of the enactment of this legislation it was called a States rights bill. That is what it was referred to by some I know of, as a States rights bill, because they were giving the authority to the States to determine where the hospitals would be located, how they would be run, and how they would be staffed. They also see to it that the hospitals are placed in areas of need. That is up to the States, too, is it not?

Dr. CRONIN. The States are required to submit a State plan to the Surgeon General for approval. He reviews the plan to see that the plans conform to the policies expressed in the act, in order that we will have a coordinated, regionalized type of rendering of hospital services. The States are the authorities that do administer the program at their level. The Government's function is to set the standards according to the law and to review the State plans, making such suggestions to the States and modifications; and also acting in the capacity of a distribution center for the hospital field in relation to quality hospital construction, quality hospital planning; and rendering technical services of that kind.

I might point out that one of the major amendments to the act, which is Public Law 380 of the 81st Congress, was the addition to the act of a third purpose that authorized the demonstration studies and planning for effective utilization of hospital services through a grant program to the States, to individuals, to universities, and so on; and that particular effectuation of that amendment to the act did not come into being because it was defeated by one vote on the floor of the House.

Mr. FOGARTY. Mr. Larmon, in making recommendations for legislative changes in the allotment formulas under other of your programs such as vocational rehabilitation, were they not based on the basic formula in the Hill-Burton Act?

Mr. LARMON. That is correct. In principle it is the same.

Mr. FOGARTY. The recommendations you are making to the Congress this year follow basically the formula of the Hill-Burton Act?

Mr. LARMON. Yes, sir.

AFTERNOON SESSION

Mr. BUSBEY. We will resume where we left off when we recessed for lunch, when Mr. Fogarty was interrogating the witness.

ESTIMATE OF ADDITIONAL BEDS NEEDED

Mr. FOGARTY. Doctor, in this task force report they also make a little comment on your estimate of 813,000 additional beds. They say:

> The estimate of 813,000 additional beds to be provided partly with Federal funds appears subject to question. Public Health Service Publication 309, issued September 1953, contains a table showing that in 1951 existing general hospital beds equaled 4.7 per 1,000 population nationwide and only 20 States had less than the Hill-Burton formula ratio of 4.5 beds per 1,000 people.

What do you have to say about that?

Dr. CRONIN. I do not understand the figure of 20 States having that number of beds per 1,000.

Mr. FOGARTY. They say Public Health Service Publication 309, issued September 1953, contains a table showing that in 1951 existing

general hospital beds equaled 4.7 per 1,000 population nationwide and only 20 States had less than the Hill-Burton formula ratio of 4.5 beds per 1,000 people.

Dr. CRONIN. That has reference, I think, to this publication entitled "How Many General Hospital Beds Are Built" and specifically to the tables on page 26, table 3, entitled "General Hospital Beds; Admissions and Days of Service per 1,000 Population and Average Length of Stay by Reason of State Financing, 1951."

Then there is a footnote. Now if I interpret what you have read me correctly, I do not agree with what has been stated, for this reason. This footnote says that the figures given in this table are "for all hospitals exclusive of mental and tuberculosis hospitals and includes general hospitals and hospital beds in institutions." And, they give the source as computed from data of the American Medical Association, 1951, Census of Hospitals.

When we say that the ratio is 4.5 beds per 1,000 for general hospitals, we do not have reference to the Federal general hospitals and we do not have reference to mental and tuberculosis hospitals, and we do not have reference to hospital beds in institutions, such as hospital beds in prisons and county homes, and so forth. These are not counted in that 4.5 per 1,000. They are counted in another category of chronic beds; those in county homes.

I am well acquainted with this particular publication, because Dr. Louis Reed of the staff prepared this publication and basically the need in the general hospital area is 4.5 under the Hill-Burton ratio for general hospitals. Now to that should be added 2 beds per 1,000 in the chronic area. That would give us a total of 6.5 for beds needed in chronic and general hospitals.

This table shows we have 4.7 beds per 1,000 in those two categories, which would indicate to me that we have not yet in any way reached, as a national overall average, the 6.5 beds needed in those two categories. In fact, we are short by the difference between 4.7 and 6.5 or 1.8 beds per 1,000 people.

So the report as you read it to me is not correct in reference to those tables, because these tables do include both general and chronic, and institutional, and Federal beds.

NEED TO ATTRACT PHYSICIANS TO CERTAIN AREAS

Mr. FOGARTY. They go on further to say:

> When the Hill-Burton law was first being considered, Members of the House indicated support to end a war-created shortage at the earliest possible moment. In the Senate, concern was expressed over use of Federal funds to build hospitals which would have a low occupancy rate.

They are talking there about something that happened 7 or 8 years ago and the House since, on 3 occasions, extended and revised this act; so I would not pay much attention to that. But in the next sentence they say:

> The appeal by the Program Administrator—

I presume that is you.

Dr. CRONIN. That is correct, on the Federal level.

Mr. FOGARTY (reading):

The appeal by the Program Administrator for a continuation of construction, in order to attract physicians into areas in which they have been lacking, no longer has any foundation in fact.

What do you have to say about that? That is a pretty blunt assertion on their part.

Mr. BUSBEY. Would not the gentleman read the other two sentences that are in connection with that, instead of taking a sentence out of context?

Mr. FOGARTY. I was going to do that in a moment after Dr. Cronin commented on the sentence I read.

Mr. BUSBEY. I do not think it is fair to ask for a comment on 1 sentence taken out of context when there are 3 more sentences in the paragraph.

Mr. FOGARTY. I have the witness now. You can ask what you want to when you get back to him; but I am asking this question and I am going to ask it in the way I want. There are two other sentences here.

Now, Doctor, that is a pretty blunt assertion of fact by these investigators who apparently had no interest at all except to find out the facts. What do you have to say about that?

Dr. CRONIN. As I started to say, I do not know on what basis, or from what source, they have drawn their deduction.

Mr. FOGARTY. They say:

The American Medical Association reports the distribution of physicians to the people served as excellent. It also reports that one Southern State is concerned with the matter of oversupply of physicians in the near future.

Now as to the first one, do you know whether or not the American Medical Association say that there are plenty of physicians in all sections of this country?

Dr. CRONIN. I do not know, Mr. Fogarty. I know the American Medical Association——

Mr. BUSBEY. I ask the gentleman to yield there. I do not think the American Medical Association, in what you read, says that at all. That is not what the sentence says.

Mr. FOGARTY. That is the way I read it.

Mr. BUSBEY. The sentence says:

The American Medical Association reports the distribution of physicians to the people served as excellent.

I think the "distribution of physicians" is a great deal different from the way you put the question in regard to ample supply in all sections of the country.

Mr. FOGARTY. If the distribution of physicians was excellent, I do not know what could be better than excellent. Is there anything better than excellent that you know of?

Mr. BUSBEY. That has not anything to do with supply. It talks about distribution.

Mr. FOGARTY. They state:

The American Medical Association reports the distribution of physicians to the people served as excellent.

Does that mean, or do you think that means, that the distribution of what physicians we have in the country is as good as it can be, or does that mean that there is no longer any need to ask physicians to go into areas which have been lacking?

Dr. CRONIN. Mr. Chairman, I do not know on what basis the American Medical Association's article was written. I know they have made studies and have been making continuing studies over many years. The information which I testified to last year and have at other times during the past year stated is that there are areas in this country which need physicians, and do not have them; and, there are areas in this country which do not have as many physicians as they need and particularly the numbers in reference to the kinds of physicians representing the various specialists that they need. That is all predicated upon personal knowledge of some areas and the information that we receive through the regional offices from the State agency hospital construction and survey program directors, all pertaining to their reports of various kinds that they publish indicating their accomplishments; and, indicating the needs still existent in the States, in the rural and isolated areas, for building hospitals; and, also stating in nearly all of those reports the fact that they have been able, through building the hospitals, to attract physicians into areas that seriously needed such physicians' services. And, I personally believe that there is a need for physicians in many rural areas of this country at this time.

Mr. FOGARTY. Is it not true, also, that 2 or 3 hospitals have been closed because they could not get a physician—small hospitals?

Dr. CRONIN. That is correct, Mr. Fogarty.

Mr. FOGARTY. Now if there were enough physicians available in those sections of the country, it seems to me they could open those hospitals. They say:

It also reports that one southern State is concerned with the matter of oversupply of physicians in the near future.

Do you know what State that could be?

Dr. CRONIN. I do not; no.

Mr. BUSBEY. I will tell the gentleman. It is Florida.

Mr. FOGARTY. Farther down they say "As shown above"—speaking of the proposed new legislation—

the basic act authorizes the expenditure of Federal funds up to the amount of $150 million. Despite this fact and the fact that the Department is requesting only $50 million under the basic act—

they should amend this report now, since we have received this request from the President this morning; I guess that should be $75 million—

new legislation has been introduced and the budget document reports a proposal for later transmission of $62,650,000.

In view of the testimony this morning, that needs amending, too.

Of this latter sum, $650,000 is for added administrative costs.

Despite the criticism of the administration of the Hill-Burton program that is recorded in the 1954 hearings before the House subcommittee, it has been decided, apparently as a policy matter, to restrict slightly the request for funds under existing legislation and to propose new legislation without redirecting the objectives of the existing program.

I do not think I want to say anything more on that.

CRITICISM OF NOT BUILDING HOSPITALS IN AREAS OF GREATEST NEED

There has been some criticism about these hospitals not being built in the area of greatest need. What about that?

Dr. CRONIN. Well I do not think, Mr. Fogarty, that that criticism is valid in application to the country, for this reason, that each State determines, as a result of their knowledge of their State and advice of their advisory council, what is needed in their State. They give an opportunity to the area that has the highest perrcentage of unmet need which, by the act, is required to have the highest priority, to come forward and build a hospital. If they are willing to, utilizing Federal funds, they do so. If they are unwilling to, because they do not want to use Federal funds, they do not do so. If they are unable to raise the matching money to meet Federal funds they do not do so.

Now, those areas are given an opportunity each time that a hospital project is to be approved in that State to indicate whether or not they intend to participate in the program, and no project of lesser priority than the area that needed a hospital the most can participate in the program until the area that needs the hospital the most says it will not participate in the program.

In general, even in an area that has 50 or 60 percent of its need met, as reflected in the State plan, there is still a great need for projects in those areas.

If we were dealing with a situation where we had the two extremes of (1) beds seriously needed which would get top priority, or (2) areas where no beds were needed, then if beds were placed in an area where no beds were needed I think the criticism would be valid; but we are not dealing with that kind of situation. We are dealing with a situation where the beds are needed basically in practically all areas of the various States. When the area with the highest priority does not elect to come into the program then the program funds are used to build in other areas that have less than the highest priority, but there is still great need for projects in such area.

Now, there are twice as much funds that have gone into areas of less than 50 percent need met than into areas of more than 50 percent of need met. I have a chart here which I can show, which shows the distribution of the relative need of areas in the program from 1948 to 1953. This chart shows that the areas with less than 50 percent of need met have received 1,052 projects and that does exclude 84 special projects amounting to $35 million in funds. It also shows that into the areas with more than 50 percent of need met have gone 434 projects.

Now in relation to Federal money, into areas of less than 50 percent of need met has gone $338 million and into areas of more than 50 percent of need met has gone $128 million of Federal funds.

This chart is a graphic representation of the tables that were requested to be put into the record yesterday morning and I think is quite indicative of the fact that the most projects and the most money has gone into areas that have less than 50 percent of their need met. And, I think that is the way the program was intended to be operated.

RATIO OF CLOSED HOSPITALS TO TOTAL PROJECTS

Mr. FOGARTY. What is the relationship of the number of projects that have been opened under this act to the number that are closed?

Dr. CRONIN. There have been 1,540 projects opened under this act and which are now serving their communities, and there have been 5 projects closed.

Mr. FOGARTY. Five out of how many?

Dr. CRONIN. Out of 1,540.

HOSPITALS THAT HAVE BEEN CLOSED

Mr. FOGARTY. What happened to those five?

Dr. CRONIN. This is a report as of January 1954 when we requested a project report on projects closed, and I will read from this report:

Springer, N. Mex.: This project, for a 14-bed facility, was one in which the Government participated in equipment only; Federal share $9,116. The delay in opening has been due to the inability to locate a surgeon for the staff. The State agency expects that the community's difficulty in this respect will be solved before too long.

Mr. FERNANDEZ. May I interrupt there to remark that this hospital has been open since April 1; they have a surgeon and everything is going along in good shape.

Dr. CRONIN. That is fine. This report is as of January 1. I am glad to have your statement.

Mr. FOGARTY. What does that bring it to—four?

Dr. CRONIN. That brings it down to four. The second project is also in New Mexico:

Melrose, N. Mex.: This project for 12 beds is one in which the Government participation was limited to equipment only; Federal share $27,000. It was sponsored by a cooperative association and the facility is being used by a general practitioner in taking care of minor illnesses and some obstetrical cases. A surgeon willing to locate in Melrose has not been found. An attempt is being made to work out with the hospital in Clovis and Portales a coordinated hospital service procedure wherein all major surgery would be performed at either Clovis or Portales; but, so far, no definite program has crystallized.

The third one is at Santa Rosa, N. Mex.:

This 22-bed project was open for several months and exhausted its operating funds. The sponsor decided to close down the hospital during a reorganization period. A subscription campaign is now being planned to raise an operating fund, at which time the hospital will be opened. Federal share was $156,000.

Mr. FERNANDEZ. May I interpolate there, also, that very recently bonds were voted and they will have money enough to be able to open that hospital and also to furnish the matching amount which they were supposed but have not matched, and they will then get the balance of their allotment from the Federal Government that will enable them to operate.

Dr. CRONIN. The fourth project is Port Gibson, Miss.

This is a small 25-bed hospital. This hospital closed during the latter part of August 1953 after having successfully operated since January 6, 1952. Friction developed between the hospital staff and those responsible for the operation of the hospital, resulting in lack of referral of patients.

And just last week we were informed by the hospital survey and program director in Mississippi that the hospital board had resigned as a body, thereby opening the way for this conflict between the board

and the medical staff to be resolved, and he anticipated this hospital would open in the very near future.

The last project is the one at Scotland Neck, N. C., a small 20-bed hospital in which the Federal share was $53,333. The State agency reports that an effective orgnization has now been established in the community which should insure the opening of the facility on a sound basis within several months.

I would like to point out that these 1,540 projects are furnishing and are operating over 60,000 hospital beds and the total number of beds closed by the projects I recited is less than 100. Also, that with 1,540 projects opened and only four closed, at least in my opinion it is not a very serious situation as far as the closing hospitals is concerned.

Mr. FERNANDEZ. Let me make the comment on the third New Mexico hospital at Melrose, that it is designed to serve 2,500 to 3,000 rural people. Melrose is in a part of the State where the drought and lately the winds have just about blown away all of the soil and the farmers find themselves in very, very bad shape. That is one reason why they have been unable to continue fully operating the hospital, although they have been operating it as a clinic. Notwithstanding all that, when I asked them over the telephone as to the situation, they said, "We do not want a dole or a handout; we are going to make out."

Dr. CRONIN. I would like to point out, too, that the Federal investment in the projects listed as closed is approximately $400,000 out of a Federal investment of over $300 million in projects open and going along well.

Mr. FOGARTY. That is all that are closed out of the 1,540.

Dr. CRONIN. That is right. There are two projects that we have had a recovery on. One is at Kearney, Nebr., which was an equipment only project amounting to $17,470, and that is in process of negotiation. We will get that back.

The other one is at Oklahoma City, Okla., an industrial and sanitary engineering laboratory, and the money was recovered in the amount of $3,583.50 on that project, and we have received a check on that project.

That is all that have been closed or any closure action taken, to the best of our knowledge.

REVIEW OF PROGRAM BY AMERICAN HOSPITAL ASSOCIATION

Mr. FOGARTY. Has the American Medical Association made a survey of the Hill-Burton Act?

Dr. CRONIN. I do not know. However, last year, Mr. Fogarty, the American Hospital Association called what they referred to as a "grassroots" conference, and meetings were held in Washington, D. C., for the east coast States; in New Orleans, for the Southeast, South, and Southwestern States; in Salt Lake City, Utah, for the Far West and Great Plains States, and in Chicago, Ill., for the Central States. At each one of those meetings they did invite the directors of the Hill-Burton program in each of the respective States encompassing the area they covered. The president of the State hospital association, in many instances, the executive secretary of the State hospital association, in those respective States, and the Public Health Service

regional program directors and several of us in the administrative level in Washington, attended.

The Federal officials invited to those conferences went there for the primary purpose and were invited for the purpose of being resource information people and did not participate in the deductions drawn, and so forth, by those hospital authorities. Also, if a member of the house of delegates of the American Hospital Association resided in the area geographically covered, he usually came to the meeting. Those meetings were held in April and May 1953 and were for the primary purpose, as I understood them, of determining just exactly what the hospital survey and construction program had done with reference to the act, as intended; and, what should be done with reference to any amendments of the act that might be brought up in line with the Taft-Hill bill that was introduced last year to extend the act; and, as a general inventory of the program; and, from it was to be deduced the American Hospital Association's final stand, after all of the comments by these area groups were referred back to the American Hospital Association house of delegates. On that official stand then was predicated the testimony of the executive director of the American Hospital Association before Congress at the time of the hearings on the extension of the act.

Mr. FOGARTY. That was my memory; I thought that was correct. They also, as I remember, endorsed the authorization of $150 million and also endorsed the formula we were working under.

Dr. CRONIN. I think both items were included in their statements of endorsement.

Mr. FOGARTY. And they also had something to say about what a great asset to the civil defense of this country this hospital program was; is that correct?

Dr. CRONIN. That is correct, sir. It was pointed out in a number of these conferences that since the great number of the projects, in fact about 80 percent of the 2,200 projects that we have approved, were general hospitals and about 60 percent of those general hospitals are located in towns under 5,000 and are under 50 beds in size—they are small hospitals. It was deduced by these people throughout the country that the purpose of the Hill-Burton Act in getting hospital services to rural areas was being accomplished at a tempo consistent with the moneys that were available; also that when built—60 percent of the roughly 1,600 hospitals being in towns under 5,000, in essence, what was being erected was the evacuation destinations of the larger cities which might be a target of any action from without and, therefore, had a very definite role to play and does play in civil defense or national catastrophes other than those related to the war effort, and so forth.

PROGRAM'S VALUE IN REDUCING INFANT MORTALITY

Mr. FOGARTY. The other day when Dr. Eliot of the Children's Bureau was here she made a statement to the effect that if proper facilities were available in all areas of this country—I presume she meant facilities like they have in good children's hospitals—10,000 infant lives could be saved a year. I do not know whether you have any figures on that since this program has been developed and these facilities have been built in these areas of need. Do you have any estimate of about how many infants' lives have been saved because of this program?

Dr. CRONIN. We could determine such statistics. It would be quite a formidable task.

Mr. FOGARTY. I won't ask it, then, if you have no idea about it.

Dr. CRONIN. Such a statement brings up a very important thing to me; that is, to relate the accomplishments of the program in terms of beds furnished is not telling the story; because what Dr. Eliot was thinking about was not beds, but services rendered because beds were there, and beds are symbolic of the service rendered. I am sure where hospitals exist, babies will be born in those hospitals in preference to being born at home in less favorable surroundings than the hospitals will supply.

Mr. FOGARTY. Then the chances of survival by a child being born in a hosiptal should be much better than if they do not have the benefit of such facilities. Is not that so?

Dr. CRONIN. That is true. And one other thing is very important there; that is, the very impact on the mother of having her baby born in the hospital, as far as the educational aspect to that mother of what good medical care is and must be, as demonstrated in the hospital, as compared to some of the things, often times makeshift arrangements, that are required in the home when children are born; and, that health educational aspect of hospital care is more and more becoming very important in my opinion in this country; because we are beginning to regard our hosiptals as the health centers of our communities and not just a place that one goes to when they are deathly ill.

ROLE OF PREPAID HEALTH INSURANCE PROGRAMS

Mr. FOGARTY. You discussed that yesterday, and it was brought to my mind last night when I saw a full two-page ad on some kind of prepay health insurance. This prepay health insurance like the Blue Shield and Blue Cross and the proposed legislation of this administration, I would think would encourage people to go to a hospital and not wait until it is too late. As these programs develop, there is going to be a greater need for hospitals, because people are getting educated to the fact that it is to their benefit to use them and they are being encouraged by these programs of prepaid health insurance?

Dr. CRONIN. I think that is a correct statement, Mr. Fogarty. I also think there is a very close relationship between the growth of the Blue Cross prepayment insurance plan and the hospital survey and construction program throughout our Nation.

Mr. FOGARTY. They go together. If we did not have hospital space, it would be difficult to sell that type of insurance.

Dr. CRONIN. I think that is true.

Mr. FOGARTY. And if we did not have either, there would be a demand for socialized medicine in this country, in my opinion at least—if we did not have a program such as this, helping these communities build facilities and, on the other hand, these prepay insurance plans like the Blue Shield and the Blue Cross. I presume the proposed legislation that this administration is sponsoring would also have some effect on the space and bed utilization in those facilities.

RATE OF HOSPITAL OBSOLESCENCE

I think you mentioned yesterday something about the number of existing hospitals that have become obsolete year after year. I remember you discussed that quite thoroughly last year.

Dr. CRONIN. That is right.

Mr. FOGARTY. What is the story on that?

Dr. CRONIN. At the present time, to the best of our estimates, the so-called attrition rate in the general hospital category alone is in excess of $100 million worth of hospital structures each year. Now I can make as good a case for $150 million as I can for $100 million; but, to assure accuracy, I would prefer to talk about the $100 million. The $100 million worth of hospitals each year, general hospitals, if divided by the national average cost of a general hospital bed of $16,000, would result in excess of 6,000 beds per year becoming obsolescent. Added to that or integrated in that $100 million, one does add the loss of the hospital buildings and the loss of beds from fire, and we do have a fire or so each year, and from wind, tornadoes, and hurricanes, and a year ago from an earthquake in Bakersfield, Calif., where, before the earthquake, they had 600 acceptable beds and the short time that the earthquake was there resulted in the loss of 500 of those 600 acceptable beds. So that community was faced with a hospital-bed shortage of over 500 beds that an hour or so before that they had. Now those latter things and floods which are in that, too, are all acts of God and we cannot control them; nevertheless they do result in bed loss. So that from the anticipated annual bed loss from items of that kind and from the normal obsolescence of hospital buildings—it has been reported that 40 percent of all hospital buildings in this country are 40 years of age or more, and we know in the hospital field that the life expectancy of a hospital is about 50 years of age—we have at least 6,000 beds each year lost, with the resulting loss of such services to the people of the country.

Mr. FOGARTY. If there are 6,000 beds lost in that category, how many are replaced by these institutions a year? Do you know that?

Dr. CRONIN. I can speak from what the program is doing and where the proper percent applies in the total picture. The hospital survey and construction program is currently building approximately one-third of all hospital construction in the country. The other two-thirds is coming about without the use of Federal funds.

NEED CAUSED BY INCREASE IN POPULATION

Now another factor than this attrition which is very significant is the factor of the increase in the number of beds caused by the annual increase in population of the country.

The increase in population last year was an increase of 2,500,000 people.

Now, the Hill-Burton ratios of beds needed in all categories—general, TB, chronic, and mental—adds up to about 12 beds per 1,000.

Now, an additional 2½ million people would require, then, approximately 30,000 beds to care for them.

The attrition rate is producing a loss of about 6,000 beds more. So that we can say that in order to keep up with the 2 factors each year,

the population increase and the attrition from acts of God and obsolescence, we need 36,000 hospital beds in all categories.

That would be quite a large financial block of our total economy to provide all of those beds in any 1 year. It would be about $600 million from all sources, Federal and non-Federal.

The Hill-Burton program is building approximately one-third of all the hospital beds in the country. If the tempo of the program and the funds available for it were to be maintained at that one-third level, it could be anticipated that they would need approximately $200 million for the Hill-Burton program.

Now, the Federal share of the Hill-Burton projects, on a national average, is around forty-some-odd percent. If we arrive at 50 percent, just on an easy figure basis, it could be said we would need approximately one-half of that $200 million, or around $100 million in Federal money in order to maintain the same one-third tempo that has been in existence.

Now, I am not in a position to decide or to indicate whether or not that one-third tempo is to be maintained, and all I can do is to portray the figures and the facts as I see them. This is as I see them. That was true last year, and if that tempo is not maintained, and if the will of Congress and the will of the people of the country is to not have the tempo maintained at that level, then, I think, in my opinion we are faced with only one basic alternative of acceptance, that is with the now factual 813,000 total bed shortage, from which can be subtracted 119,000 Federal beds in the Public Health, Veterans', and Indian Service hospitals, we will increase our basic bed deficit. Each year we do not retain this one-third ratio between federally aided and nonfederally aided hospital construction and since nonfederally aided hospital is not increasing percentagewise, we will increase our total bed deficit and this has been going on since the inception of the program as it applies to total beds. Progress is being made in relation to general beds in reducing the deficit there.

Mr. FOGARTY. Thank you, Doctor. I believe that is all for the present.

Mr. BUSBEY. Mr. Fernandez.

INVESTIGATORS' REPORT

Mr. FERNANDEZ. Dr. Cronin, although you people do not have a copy of this so-called staff report, the chairman has stated to you that he will turn a copy of it over to you, and that the committee's investigation staff will sit with you and go over it.

Mr. BUSBEY. Will the gentleman yield for a correction?

Mr. FERNANDEZ. And you have agreed to go over the report with the committee's investigation staff.

Mr. BUSBEY. Will the gentleman yield for a correction?

Mr. FERNANDEZ. Yes.

Mr. BUSBEY. I think I said I was going to suggest to the committee that a copy of this report be turned over to them. I do not think the chairman has the authority to turn it over without action by the committee, and I propose to submit it to the committee as a suggestion, hoping they will approve it.

Mr. FERNANDEZ. I thank the chairman for the correction, and that makes my question more important.

You have, Doctor, agreed very readily to sit down and go over the report with the staff of the committee if it is turned over to you. My question is this: I do not know exactly what the purpose of going over the report of the investigation staff of the committee is, but will you, in going over the report, permit yourself to be influenced by it, or permit your judgment and discretion in the administration of this law to be influenced by what the investigation staff thinks and says you ought to do?

Dr. CRONIN. Mr. Fernandez, I would like to answer that this way: When Mr. Gromel first came to me in my office a year ago, I knew nothing about Mr. Gromel. I had never heard of him, nor had I ever seen him before.

I had been advised through official channels that there was to be an investigation by the Appropriations Committee of the House to look into the hospital survey and construction program. My first remark to Mr. Gromel was, and I still stand on it, that I was very glad to see him, that he was worth $10,000 or more to the program, because I felt that an outside observer competent in the field of hospital administration and health programs, and with knowledge of what the program was, could render untold service to me as administrator of the program, as he would be able to see problems, point out areas that are dragging, and point out areas in which I needed help, and that I would be more than glad to have him do so.

I told him that I felt toward him and his committee very much like I felt toward hiring someone to come in and clean your house. That fundamentally they will do a better job than you do because you live there all day long, and you become accustomed to the dirt in a certain place, whereas they, coming in as experts, in a situation will be very helpful.

I still feel that way. I will be more than glad to sit down with Mr. Gromel or any of his staff and go over what he thinks is the situation in regard to this program.

I do not think that my judgment would be influenced by what that particular committee which investigated this program would say. From what I have heard of this particular report, and what I learned last year of the reports that were made at that time, I do not think that they would influence my judgment as a doctor. I am a doctor to the degree I am in the field of hospital and health administration, and I will stand any day on judgment by my peers. I will not stand any day for judgment not by my peers, and from what I have understood I frankly do not consider Mr. Gromel as an expert in the field of hospital or health administration. But I would be more than glad to listen to him; more than glad to give every consideration to him because I think he is an intelligent person, and certainly successful in his area, which is not hospital administration; and I am more than glad to give full credence and full credit to an intelligent person's judgment. I do not necessarily feel that I have to accept that judgment if it is in conflict with my judgment and my experience in an area which is equal to and greater than his. That is my stand.

Mr. FERNANDEZ. Well, I thank you for the answer, which is very characteristic of you, Doctor.

Some statements in this report go beyond the administration of the law, and are critical of requirements which the law itself makes. I think that when the Congress passes a law, then the responsibility

is on the executive department to carry out that law, and I certainly am glad to know that you are not going to be influenced in discharging that responsibility by what this committee or its staff thinks respecting what they seem to think are not good requirements or formulas which the law prescribes.

Dr. CRONIN. Mr. Fernandez, I would like to be perfectly fair on this and not be misunderstood.

Some of Mr. Gromel's comments last year, as they were reflected to me via this committee, and via congressional action, were quite helpful and in two areas in particular. One area was in the closing up of projects, and the other area was in the overall procedure in relation to split-project technique. They were quite helpful. They pointed out several things that I think were very fine.

I do not think, as far as the split-project technique is concerned, it completely stopped split projects, nor do I think split projects should be stopped, because I think in some States it is the only way that a State can build a project because of the small size of the Federal allotment.

In those areas where he has been helpful I welcome comment and in those areas where he has not been helpful I do not welcome it.

Mr. FERNANDEZ. But, nevertheless, since that is necessary, and as long as the law permits that and expects that, you will follow the law and administer it as it is required to be administered?

Dr. CRONIN. That is my responsibility as a public official.

RELATIONSHIP OF LOCALITIES, STATES AND FEDERAL GOVERNMENT UNDER PROGRAM

Mr. FERNANDEZ. Now, in line with some of the criticisms and comments made in the committee's report you have been asked questions, Doctor, not only with respect to the administration of the law but beyond that as to what your own opinion is as to what the law should be, and what should be done instead of what the law requires. I want to ask you this question: Doctor, when the communities and the States come to you with an application for Federal participation you do not consider them mendicants coming to the Federal Government for charity, do you?

Dr. CRONIN. I certainly do not, sir.

Mr. FERNANDEZ. Do you consider this, instead, as in the nature of a partnership between the communities, the States, and the Federal Government in attempting to discharge a joint responsibility?

Dr. CRONIN. I think that is expressed very well, and that is certainly the way I feel about it. They are associates in trying to get a job done, to give better health service to the people of the country as defined and outlined in an act which is on the books of the land.

Mr. FERNANDEZ. I am terribly tempted to ask you specific questions on comments which are made in this report, some of which, at least, seem to me to be very glaringly beyond what I have understood has been done, but if I were to do that and ask you about them I would have to put the comments from the report into the record, and I grow more and more convinced that that would be unfair not only to you, but unfair to the other Members of Congress who would read those comments in the record not knowing, and we do not know ourselves,

upon what facts they were based, how they were gotten, and particularly what entered into consideration in reaching their conclusions, so I will have to forego that.

ST. VINCENT'S HOSPITAL, SANTA FE, N. MEX.

I will, however, ask you this, without reading what is said in the report with respect to St. Vincent's Hospital in Santa Fe, which is by the report characterized as an "overextension of hospital plant."

What are the facts about St. Vincent's Hospital, if you are prepared to give them to us now?

Dr. CRONIN. I know nothing offhand about St. Vincent's Hospital, Mr. Fernandez, but I will be more than glad to insert in the record a statement that we can draw up from our project office on St. Vincent's Hospital.

I can tell you now the total estimated cost of the Federal share, but it is one of 2,200 projects that we have, and I just cannot keep them all in mind.

Mr. FERNANDEZ. I did not have that particularly in mind. It is a question of whether this is an overextension of hospital plant.

I happen to know, since I have lived there, that up until a year ago when this new hospital was built, the need for hospital beds was so great that makeshift beds were put in the corridors, and it was getting to be a scandal. I happen to know of patients who have driven from Sante Fe up to a little community in the mountains by the name of Dixon where there is a private hospital because we did not have the facilities in Sante Fe to take care of them. If the figures given here in this report were made known to the people of Sante Fe they would be very much incensed about them.

Mr. BUSBEY. On what page in the report is that?

Mr. FERNANDEZ. This reference to overextension is on page 6.

I have a clipping from a newspaper from Sante Fe dated May 6, 1954. It is a little item stating that:

> Willard C. Kruger was elected chairman of the St. Vincent Hospital advisory board at a meeting held yesterday.

This clipping also says:

> Sister Mary Matthew, superintendent of the hospital, advised the board of the substantial progress in improvement in services to the public since the opening of the new hospital.
>
> The hospital reported free care in the amount of $58,305.29 in 1953. A total of 4,237 patients was admitted in the first year of operation of the new hospital, an increase of 741 over 1952.

What have you in the way of comment on that general aspect of it, if you have any knowledge of it of your own?

Dr. CRONIN. All I know about St. Vincent Hospital, Mr. Fernandez, is that we were asked by Mr. Gromel on February 16, 1954, for a list of a certain number of projects of which New Mexico No. 8, St. Vincent Hospital, Santa Fe, N. Mex., was one, in regard to its designed capacity which we reported as 200 beds, and its occupancy which we reported as not available at that time, and the source of our material, which we indicated to Mr. Gromel, was the State plan of June 1953.

Then on February 24, Dr. E. T. Thompson, who is our chief of program operations in the Washington office, received a telephone call from Mr. Gromel. In response to a request for occupancy rates we received a wire from our program director in Dallas, Tex., which covers the New Mexico area. That reads:

Re tel—

which refers to our telegram sent out to the region to find out this information for Mr. Gromel—

dated February 23, New Mexico No. 8, St. Vincent Hospital, Santa Fe, 200 bed facility used as follows:

General beds, 165; mental beds, 15; nurses home, 20 beds.

Occupancy information for January 12 to December 31, 1953, 345 days. Patients admitted, 4,235. Patient-days, 24,909.

Percentage of occupancy, general, 42.6 percent. Mental wing not open as yet.

That is signed Guy Daniels, program representative, hospital facilities, Dallas, Tex.

Mr. FERNANDEZ. Does that information, from your experience as a doctor, indicate to you that that is an overextension of facilities at this particular hospital?

Dr. CRONIN. I would not say so.

I would like to point out that that is the first year of operation of this large hospital, and only the operation of a part of it at that, the mental wing was not open at that time. Referring to the 42.6 percent again, I just do not like to think that we are going to use the average occupancy rate as the only and the sole criterion for evaluating the utilization of a hospital and the effectiveness of it. I think it cannot be used that way.

Mr. FERNANDEZ. And that report is based on the full year when, as a matter of fact, they were actually moving into it in the first part of the year, moving from the old hospital, and the new hospital not being fully utilized, which goes to show the danger of taking bald statements from a report like this and putting them in the record.

There is one other thing that I think I can quote into the record without doing anybody any harm.

Mr. BUSBEY. Will the gentleman yield for a question?

What does he mean by putting it in the record?

Mr. FERNANDEZ. Reading it into our hearings record. I do not think this report is in the record, is it?

Mr. BUSBEY. No. That is why I wondered what you had in mind.

Mr. FERNANDEZ. I had in mind quoting from this report, into the record of these hearings.

CHARGES OF DISREGARD OF EFFICIENT ADMINISTRATION

On page 23 of the report comment is made by the investigation staff with respect to testimony in February 1954, before the Committee on Interstate and Foreign Commerce on H. R. 7341, the testimony being given by various Members of Congress, and excerpts therefrom are set out.

The last one is the one I want to read, and ask you, Doctor, if you have any comment with respect to that declaration.

It says:

To continue with the illustration of disregard of efficient administration, the testimony of the chairman—

I suppose that is the chairman of the Interstate and Foreign Commerce Committee—

may be cited as follows (presumably referring to the Appropriations Committee)—

I take it that means that they presume that the comment made by the chairman referred to this committee:

* * * I am thoroughly of the opinion that if they had one bit of sentiment in their hearts, they would want to go the limit and might be willing to raise the limit, as a matter of fact, when they see the great need there is and the good that could be done with sufficient appropriations.

Now, that quotation is given to us from the staff report as they say:

To continue with the illustration of disregard of efficient administration.

Do you consider what this committee has been doing and what the Congress has done in passing this law requiring these appropriations to be made, to be a disregard of "efficient administration"?

Dr. CRONIN. No, Mr. Fernandez, I do not.

I think I was there when that statement was made by Congressman Wolverton, and I think it was made in reference to what could be done if adequate appropriations were provided for the building of hospitals and related facilities throughout the country.

I do not know how this report ties that into any lack of administration or maladministration on behalf of myself, and I would like to point out very definitely that I do not think such a thing has occurred.

Maybe I am prejudiced in that regard, but the administration of this particular program is not an administration by myself and my staff solely. The administration of this program as a joint effort, and I regard them, and I know that they regard myself and my staff as associates, and I refer to them as such, the State agency director of programs in the 53 jurisdictions covered by this act which are the 48 States and Alaska, Puerto Rico, the Virgin Islands, the District of Columbia, and Hawaii.

In all our meetings there has been the closest cooperation and coordination and any charge, in my opinion, of maladministration should be disregarded.

Mr. FERNANDEZ. May I say that this particular paragraph says:

To continue with the illustration of disregard of efficient administration—

which may be a little different.

Dr. CRONIN. Even an efficient administration is one which would be shared in by not only myself and my staff, but the hospital survey program directors and their staffs in all of the 53 jurisdictions, and I fundamentally do not feel that such a statement is correct.

Mr. FERNANDEZ. And their urging upon you, when you sit down with them to go over the report which states that these sentiments expressed by the person named there by reference, constitute a disregard of efficient administration, would not be regarded by you as a reason for scaling down future requests for appropriations?

Dr. CRONIN. I have sat down with many a man in doctor-patient relationship and others with whom I did not agree, where I did not agree with him and he did not agree with me. I like to think that when we both get up again that we are a little closer to agreeing,

because I do not particularly want to go through life fighting everybody, and I think fundamentally, as a public official, my job is to do the job as best I can, and that is what I am attempting to do and will continue to do.

Mr. FERNANDEZ. Thank you very much, Doctor. That is all.

USE OF TASK FORCE REPORT

Mr. BUSBEY. I think I would like to make a general statement at this time before I continue with my interrogation.

First of all, Dr. Cronin, I want to thank you for the credit you gave in the two instances to the task force last year. What is presented here to the committee in the report of the task force is not binding on anyone. We only use it as a basis for interrogation of the witnesses in order to have a better foundation for making a recommendation to the full committee and, in turn, to the House, on the appropriations for the fiscal year 1955.

I want to also state for the record that, as far as any work of the task force in the Department was concerned, they were not working under any instructions from me to do anything over another thing, or to look for anything particularly, or for anything that would embarrass anybody. I knew nothing about what they were going to write in the report until every member of the committee received the report at the same time I did. I did not receive a single report any sooner than any other member of the committee.

Mr. FERNANDEZ. Will the gentleman yield to me for the purpose of making a statement for clarification of the record?

Mr. BUSBEY. Yes.

Mr. FERNANDEZ. Wherever statements from the report have been read into the record in asking questions it should be clearly understood that they do not represent any findings of this subcommittee in any respect.

Mr. BUSBEY. I will accept that.

Mr. FERNANDEZ. Purely for the purpose of inquiry.

Mr. BUSBEY. Now, it goes without saying that no member of this committee has the time to personally review the operation of these programs for which we have the responsibility of recommending appropriations. The idea, as I understood it, of calling in people from the outside to participate as members of the survey and investigation staff of the Appropriations Committee was to make a survey of these programs and submit it to the committee as a basis for interrogation of witnesses at these hearings.

To further make the record clear, may I say that I think it is a very excellent idea.

Mr. FERNANDEZ. In the past we have had somewhat similar reports, but we have refrained from reading from them, as far as I can recollect, into the record, and the one thing that concerns me is to make the record clear that when we do read from them they are not conclusions that we endorse or our findings, but they are merely statements from somebody whose source of information we do not know. Neither do we know the source of the information considered in arriving at the conclusions which were put into the report which we read into the record.

Mr. BUSBEY. That is the reason I read some of the statements from this report in order that we would have the advantage of Dr. Cronin's comment on them. I think it is only fair that we should have comments on anything where there is a question raised.

I will accept the gentleman's statement.

Mr. FOGARTY. Will the gentleman yield?

Mr. BUSBEY. Yes.

Mr. FOGARTY. I think there has been nothing said on the record that would indicate in any way that you gave instructions to any investigator.

Mr. BUSBEY. I am sure there was not, and I do not see how anybody could interpret remarks as such. I just wanted to make a statement to make my own position absolutely clear.

Mr. FOGARTY. I am perfectly satisfied that I received the report at the same time you did, and we all have it before us.

The only question that is in my mind is that I do not know the background of these so-called investigators. I do not know whether they are trained investigators for this purpose or not. I do not know but what they have just retired from the telephone company, or a public utility company or an insurance company and know nothing of hospital construction.

The thing that does amaze me in all of these reports that I have read is that there is no word of commendation at all in any report. In reports that I have seen rendered to the Committee on Appropriations before this last year and a half, when they thought a program was working well they said so, and pointed out the fact that maybe a little more money should be appropriated in this area or in that area, but these investigators making these reports, in my mind, are doing a hatchet job, and that is all.

I do not think it is constructive.

We just received this morning a communication from the President of the United States requesting more funds for this program. It is inconceivable to me that the President of the United States would recommend to the Congress, an additional $25 million for this program if the things in this report are true.

I have never seen such a thing in my years here in Congress where the President of the United States has made such a recommendation in the face of such an adverse report by a group of investigators of a department of Government. I have never seen it happen before. I presume it has been approved by the Bureau of the Budget and has the approval of the Secretary of the Department of Health, Education, and Welfare and, at the same time, we are considering a report that has not one word of commendation in it for the entire program. You could almost read from the report that this program should be eliminated entirely and the States and communities should carry on alone.

Mr. BUSBEY. I do not know, but I certainly did not get any impression that they were to survey these programs for the purpose of making reports of commendation. I more or less took for granted, that it was a matter of trying to make suggestions for improvement of these programs and looking for places where some economies might be made.

ST. VINCENT'S HOSPITAL, SANTA FE

Mr. FERNANDEZ. There is certainly room for commendation in connection with St. Vincent's Hospital at Santa Fe, Mr. Chairman.

Mr. BUSBEY. Now, let us talk about Santa Fe for a minute.

I see here in the part of the report that you called to our attention regarding St. Vincent's Hospital, they refer to it as having a percentage of occupancy of 43 percent. Dr. Cronin said, according to the statement he read into the record that it was 42.6 percent.

Mr. FERNANDEZ. Yes, but we now have the facts on which that was based, which we did not have from the report.

Mr. BUSBEY. Dr. Cronin, is there anything in the statement, included in the report, regarding the occupancy at St. Vincent's Hospital at Santa Fe, N. Mex., which is not true?

Dr. CRONIN. All I know, Mr. Chairman, is that the telegram we received from our Dallas regional office indicated that the occupancy rate for the 354 days, as read into the record was 42.6 percent, but that the mental hygiene wing of this hospital was not open.

What is in the report I do not know except what you have read to me.

Mr. BUSBEY. Is there anything else in the report except that statement of occupancy, Mr. Fernandez?

Mr. FERNANDEZ. Yes; St. Vincent's Hospital is listed along with several others, about which I know nothing, and it says in the report:

> This factor is again being emphasized because of continuing evidence of low occupancy with its corollary, overextension of hospital plant—

and there certainly is not an overextension of hospital plant in Santa Fe, I will say to the chairman.

Mr. BUSBEY. Of course, I do not think you should pick just one.

Mr. FERNANDEZ. I picked out the only one I know anything about.

Mr. BUSBEY. There are 19 examples given, and St. Vincent's is only 1 of 19, so it could apply to the other 18, and not to St. Vincent's, I might say to the gentleman from New Mexico.

Mr. FERNANDEZ. From what we have on the record here it might have been just as applicable to any of the others as Santa Fe. However, if we read them into the record Members of Congress might think that was factual.

Mr. BUSBEY. I did not read it into the record.

Mr. FERNANDEZ. Not this particular one; no. I did, and I know something about it, and I could explain the situation.

BENEFITS FROM TASK-FORCE REPORT

Mr. BUSBEY. Well, Dr. Cronin, do you think that after you sit down with the men of the task force that worked on the Hill-Burton program, and have worked out the 2 or 3 constructive suggestions which came forth last year, that all in all it might have been very helpful to the committee and the Congress and the hospital division that handles the Hill-Burton Act?

Dr. CRONIN. Mr. Chairman, I would not presume to answer your question on how beneficial it was to Congress or the members of this committee. I think they should say that for themselves.

As far as the benefit to the Division of Hospital Facilities in the administration of our program is concerned, I think it falls in the basic category of a mixed blessing.

I am glad to get information that is fundamentally right and on which I could base proper and appropriate action. As to information which is fundamentally wrong—I am not saying this group is coming up, or did come up with information that is wrong, but I am saying that they have been able to. We have lent the greatest assistance and the finest kind of cooperation that I know of, and they have taken up a considerable length of time, and so forth.

Mr. BUSBEY. I would like to break in and say my understanding, from what they said of your Division, was that you were most cooperative.

Dr. CRONIN. Thank you. I do think to prejudge in advance what that group would say about me is not fair to me and is not fair to them, and I could not answer your question.

Mr. BUSBEY. Now, as to the lack of commendation in this report, I am going to liken that to my own personal case politically.

Back in my congressional district in Chicago I have 25 people that I call my "no" people. You can spell that k-n-o-w or any way you want to, but those 25 people write me at least once every month, and they are prohibited from saying any of the good things that might be said about me back in my district in Chicago.

They report to me only the adverse and the critical things that are being said against me. I firmly believe that a man in politics that surrounds himself with a lot of "yes" people is surrounding himself with people who are not very valuable to him. The most valuable people I have in my district are the people who send me these critical reports of what is being said about me in the district.

I think it is very constructive and very worthwhile to have someone come in from the outside and attempt to criticize a program in a constructive way.

If 2 or 3 good things come out of this report to the committee, I think it would have been time well spent, because certainly we are not in any position to go down there and check on all of these things ourselves and, after all, we are charged with the responsibility of making recommendations for large appropriations.

Dr. CRONIN. Mr. Chairman, may I point out that I did not, nor did any of my staff, seek any commendation of the operational program.

AMERICAN HOSPITAL ASSOCIATION REPORT

Mr. BUSBEY. You spoke of this report made by the American Hospital Association last year, resulting from these conferences they held in various sections of the United States. What suggestions did the association make in regard to changes in the Hill-Burton program that they think would be of a constructive nature?

Dr. CRONIN. Well, I think what they did, Mr. Chairman, was in general to discuss the program as it was operating with the State agency directors of the program, and there are certain situations that pertain to one State that do not pertain to another State because of the difference in character of the States in many areas. Also, in the final analysis, they came up with a series of recommendations which represented the American Hospital Association's basic stand in regard to this Hill-Burton program.

Mr. BUSBEY. That is, of a legislative character, for consideration by the Congress?

Dr. CRONIN. It is of a character that indicates their attitude toward the total program. As I understand, it was to be utilized by their spokesmen before the Congress in their hearings relating to the extension of the hospital survey and construction program.

Mr. BUSBEY. What recommendations did they make to improve the Hill-Burton program over the way it is being operated at the present time? In other words, what did they criticize constructively and say, "This is the way it is operating now. We think it is wrong and this is the way to correct it."

Dr. CRONIN. I know of no basic criticism that would pertain to the way the program was operated as a total program. They did discuss with the State agency program directors various things that pertained to their own States. They asked questions, primarily.

I would like to read to you a summarization by the American Hospital Association. This is in Architectural Record for March 1954, which is published by the F. W. Dodge Co. and is part of a reprint that was put out entitled, "Hospital and Health Facilities" and it takes up the President's new program and makes comments about the Hill-Burton program in toto and winds up with 15 statements that they say—and I know it is true—were the deductions of the American Hospital Association as a result of these grassroots conferences.

Item (1) was:

There has been general acceptance of the Hill-Burton principles and program.

(2) Hill-Burton is a well administered program.

(3) It has resulted in better patient care through licensure of hospitals and improved standards of health care in hospitals and health centers.

(4) Hill-Burton has provided a better distribution of hospitals and related health care.

(5) Organized planning for hospital and health needs of all the people has been stimulated.

(6) Better architecture is one of the many excellent byproducts.

(7) Staffing and operational problems, even in small hospitals, have been partially met.

(8) Hill-Burton has stimulated better hospital administration.

(9) The program has preserved States rights.

(10) State advisory councils have contributed to broad thinking and sound planning.

(11) It has been an asset to civil defense.

(12) The program has advanced the cause of hospital safety.

(13) Hill-Burton is an effective pattern of Federal, State, and local cooperation.

(14. Present authorization of $150 million is adequate.

(15) Present allotment formula is acceptable.

Mr. Goble, the editor of this magazine, Architectural Record, states:

It is clear that, at a critical period, the Hill-Burton program has been reexamined and has passed its tests cum laude. It is clear also that this satisfactory experience promises well for the continuation and extension of the whole program of health facilities.

Mr. BUSBEY. What was the last one about the Hill-Burton formula?

Dr. CRONIN (reading):

Present allotment formula is acceptable.

Mr. BUSBEY. How did they arrive at that conclusion?

Dr. CRONIN. These men, Mr. Chairman, I would like to point out, are all experts in the field of hospital administration and represent in aggregate perhaps the largest group of competent hospital adminis-

trators in total competency in this country relating to hospitals, the need for hospitals, and the conduction of the administration of hospitals.

Mr. BUSBEY. I would assume that, but tell me what they did in arriving at those conclusions.

Dr. CRONIN. I attended the Washington, New Orleans, and Chicago meetings. I was unable to go to the Salt Lake City meeting because of congressional activities that required my remaining in Washington. The three meetings I attended were conducted in this manner: They were broken up in four groups and some outstanding hospital authority stood at the blackboard and with a piece of chalk wrote on top of the blackboard: "What is wrong with the Hill-Burton program?" Then they spent a number of hours writing down what was wrong with it, and then they spent a similar number of hours on what was right with the Hill-Burton program.

CRITICISM OF PROGRAM

Mr. BUSBEY. What were the things they thought were wrong with the Hill-Burton program?

Dr. CRONIN. In some sections of the country they said the allotment formula was not equitable. Another item which they put on the blackboard was that in some sections of the country, and even within the regional groups the statement would be made that the hospitals were unable to be staffed. And similar questions were raised. Without any regard to the validity of them, the questions were put on the blackboard. Then the group on the afternoon and morning of the second day discussed each one of those statements and arrived at a consensus of opinion within that group as to whether or not that statement was correct and whether or not the statement was properly worded and meant what it said, and so on. So that in eessence they nailed down specifically many of the alleged criticisms, and on the the other side alleged good points, and in the final analysis came out with a groundwork upon which they could base specific statements.

As a result of discussions concerning the first item I mentioned, that the allotment formula was not equitable, it was withdrawn and the American Hospital Association came out with item 15 as read that the present allotment formula is acceptable.

It was in that manner that they handled all those various items of criticism and also of advantages. The same type of thing was gone through on all those items that I read and these were the final deductions which represented the thinking of the aggregate hospital people throughout the Nation.

I think the interpretation of those things by this group is a quite valid criterion of what the program is doing and what it is representing. This is so also, I think, in regard to the so-called task force report. I think the interpretation of many of the items that have been read to me is one that has to be approached with very keen judgment and knowledge of the factual material listed and so on.

Mr. BUSBEY. You read 15 points as I recall it.

Dr. CRONIN. That is right.

Mr. BUSBEY. I would say without any hesitancy that I not only would subscribe wholeheartedly to the first 14, but I could write those without any conferences on the Hill-Burton program. Just as Jefferson said, "These truths are self-evident."

Regarding these criticisms or alleged criticisms, let us say, which were the object of discussion at these conferences, where is there a record of what conclusions they came to on these criticisms?

Dr. CRONIN. Mr. Chairman, I think that record was inserted in the hearings before the House Interstate and Foreign Commerce Committee and the Senate Labor and Welfare Committee in relation to the extension of the Hill-Burton program which did pass last May. Also, the American Hospital Association—and they have a Washington office here—I am very certain has this material printed, and if you so wish, I can acquire it and put it in the record.

Mr. BUSBEY. I do not care whether it goes in the record or not, but I was interested in just how they arrived at the factual conclusions in answering these alleged criticisms.

Dr. CRONIN. I think the facts were derived from these outstanding and competent people.

Mr. BUSBEY. They must have worksheets or something where they stated their views.

Dr. CRONIN. These men are spending their lives doing this type of work.

Mr. BUSBEY. I know it.

Dr. CRONIN. And many of their basic experiences, after 25 or 30 years of working in the hospital field, very definitely are factual, and they carry those experiences with them when they attend those meetings, and it was in order to, as one said, "definitely lay the ghosts in the aisle," that the conferences were held. There were presumptions about this program, and it was through a meeting of this kind down at the level where these hospitals are that these presumptions were found to be factual or unfactual, and what came out of the meetings were the factual statements of the American Hospital Association.

Mr. BUSBEY. I think they are to be commended for approaching the problem in that manner.

Somebody might misinterpret the real reason why I go through the method of interrogation that I do, but let me illustrate it this way:

I was in the securities business for, I will say, 32 years. I had my own business for 22 years. In teaching men how to approach their prospective customers, and try to convince them of the value of the security they were selling, I told them that one of the approaches I always made to the prospective client was to say, "let us take this security and paint it as black as we possibly can; let us think of all the objections we can to this security as an investment; and after we get through painting it black, if there is a little white spot left there is at least some merit to it."

I think we do a constructive job which has a tendency to improve not only the Hill-Burton program but many of the other programs for which we are asked to recommend appropriation of Federal funds, by a system of interrogation to try to bring out what might be alleged defects or criticisms of the program in order to get the answers on the record. I still want the record to show that as far as the program is concerned, I am still for it.

Dr. CRONIN. Thank you, Mr. Chairman. I was very pleased to go through these interrogations, because I think it gives us an opportunity to acquaint everybody with the program.

Mr. BUSBEY. There is certainly no desire on my part to try to embarrass a single soul who ever comes before this committee. It is just a matter of getting the facts on the record.

HOSPITALS BUILT IN TOWNS OF 5,000 OR LESS

Doctor, somewhere in the interrogation this afternoon, in response to a question from Mr. Fogarty, you made some mention of the number of hospitals that had been built in towns of 5,000 population or less. What was that figure? Was it 60 percent?

Dr. CRONIN. Mr. Chairman, as of December 31, 1953, there were 2,192 projects approved, which will add 105,702 beds and 447 health centers and a number of related health facilities. 1,395, or 64 percent of these projects, adding 58,372 beds, are open. 662, or 30 percent, and 39,909 beds, are under construction; and the remaining projects, with 7,420 beds, are in the preconstruction stages.

The difference between the 1,395 projects and the 1,550 projects I mentioned is that the 1,395 projects are hospital projects and the others are related projects through which there are no beds added.

Mr. BUSBEY. What is the total number of beds in those 1,395 projects?

Dr. CRONIN. In the 1,395 hospital projects, 58,372 beds are now open and in operation as of December 31, 1953.

Mr. BUSBEY. How many of the 58,372 beds are in towns of 5,000 population or under, and how many are in towns of over 5,000 population?

Dr. CRONIN. Of the new general hospitals approved, 58 percent——

Mr. BUSBEY. I am talking about beds. What is the number of beds, of the 58,372, in towns of 5,000 population or under?

Dr. CRONIN. We do not have it broken down that way.

Mr. BUSBEY. How can you get a percentage unless you do?

Dr. CRONIN. In terms of the projects we can get a percentage. Fifty-eight percent of the projects are located in communities of less than 5,000 and 8 percent in cities of 50,000 and more people.

Mr. BUSBEY. Will you supply that information for the record?

Dr. CRONIN. We will be glad to.

(The requested information follows:)

HOSPITAL CONSTRUCTION PROJECTS

Beds added in communities of less than 5,000 population, April 30, 1954: 25,161.

PROJECTS READY TO BE STARTED UPON AVAILABILITY OF FUNDS

Mr. BUSBEY. What is the total number of projects that have been approved by State planning boards that are ready to go ahead with construction as soon as funds for 1955 are available that cannot be taken care of with funds that have already been appropriated for fiscal year 1953 and fiscal year 1954? Also how much Federal funds would be required for this group of projects?

Dr. CRONIN. In response to a request from one of the Senators, to Mrs. Hobby, the Secretary, which request was worded something like this:

If the Hill-Burton funds were unlimited, how many projects are currently on the desk or known to the State agency program directors that are in a position to proceed in fiscal year 1955 if there were no ceiling on the Federal funds?

As a result of that inquiry—and a similar inquiry was made for 1956–57—the following statistical information was acquired:

Through 45 States reporting—the other 8 did not report to us—there are 669 projects, totaling in the aggregate 41,436 beds, the total estimated cost of construction of which would be $681,673,000, and the Federal share of those projects which could be covered if the money was available, and that would be ready to proceed to the best of our knowledge from reports from the States in fiscal 1955, would be $270 082,000.

Mr. BUSBEY. Is that just 1955 or 1956 and 1957 too?

Dr. CRONIN. That is for 1955. For 1956 and 1957 there are 795 projects totaling 64.618 beds at an estimated total cost of $992,842,000, of which the Federal share would be $406.692.000 for 1956–57.

Mr. BUSBEY. That is sort of an "iffy" question put by the Senator, and that is not the question I asked. I say it is an "iffy" question because there is the assumption that the State planning boards would approve all those known projects, and I do not believe they approve all the projects.

Dr. CRONIN. Those projects are approvable projects. The State planning boards have knowledge of these projects and they are approvable under the terms of the act.

Mr. BUSBEY. That still does not answer my question. My question, as I will restate it, is this:

What is the total amount of projects, in number and dollars, that have already been approved by the State planning boards that are ready to go ahead with construction if funds available for 1955 are appropriated that cannot be taken care of under the 1953 and 1954 appropriations?

Dr. CRONIN. That is the figure I gave you, 669 projects amounting in Federal money to $270.082,000.

Mr. BUSBEY. Those have been approved as projects that definitely will receive Hill-Burton funds?

Dr. CRONIN. They cannot approve projects in the States. Mr. Chairman, until the appropriation is available for approval of the projects.

CHRONIC BED RATIO

Mr. BUSBEY. There was some discussion earlier that in regard to the formula of 4.5 beds per 1,000 population, in reference to some statement in the task force report, I believe it was stated that they did not include an additional 2 for chronic cases which, according to your testimony as I recall it, should increase the figure to 6.7.

Dr. CRONIN. 6.5 minimum and in the less populated States, or States where the density of population is sparse, it goes up to 7.5.

Mr. BUSBEY. How is two arrived at?

Dr. CRONIN. Two is the ratio in the present Hospital Survey and Construction Act. The figure is two beds per thousand for chronic patients and beyond that figure the Federal funds cannot be used in any State.

Mr. BUSBEY. If those chronic beds were built, would that contemplate removing people from nursing homes and different small establishments where they are at the present time?

Dr. CRONIN. It has no relationship to the type of patient that is in the nursing homes. The chronic type of patient referred to in the Hill-Burton Act is the patient that requires hospitalization and folk in the nursing homes do not require hospitalization.

Mr. BUSBEY. Since we have to answer a roll call, I think we will adjourn until 10 o'clock tomorrow morning.

THURSDAY, MAY 13, 1954.

Mr. BUSBEY. The committee will come to order.

PAY RAISES VERSUS NEW PROJECTS

Dr. Cronin, I noticed an article in the New York Times of April 29 of this year which is headed "Hospital Body for Pay Rise at Expense of New Projects."

The article is not very long, so I think I will read it all into the record so we can get your comment on it:

The board of hospitals recommended yesterday that $6,842,711 of new projects be deferred and that the money be used instead to raise salaries of nurses and other professional workers in existing facilities.

It is more important to counter critical shortages and strengthen present services than to open new hospitals and related undertakings, members of the board told Mayor Wagner and his advisers at a closed meeting in city hall.

Aware that it must operate within the 1954–55 budget of $120,670,432, the city's top hospital policymaking group suggested several modifications. If the board's plan is approved, the following projects would not be opened in the coming fiscal year:

The first 500-bed section of the new East Bronx Medical Center, scheduled to open July 1. Estimated saving, $2,660,000.

The second 900-bed section, slated to open April 1, 1955. Estimated saving, $2,500,000.

New Metropolitan Hospital, a 1,050-bed facility at 2d Avenue from East 97th to 99th Street, scheduled to open on February 1, 1955. Estimated saving $530,000. The hospital would replace the old hospital of the same name, Welfare Island, which is to be demolished.

A 220-bed addition to Queens General Hospital. Estimated saving $631,711.

The board suggested also that reconstruction of a part of Kings County Hospital, and new laboratories and other facilities to be built at other city hospitals also be dropped from the 1954–55 budget.

As an alternative to deferring the opening of new projects, the board suggested that it might be advisable to consider closing down part or all of some old hospitals. No institutions were mentioned specifically.

The money to be saved by the elimination of new items show go for salaries, the board told the mayor, so that the city could be in a better competitive position to attract professional hospital help.

The members reported that the chronic nursing shortage was getting worse. While voluntary hospitals are paying only slightly more than the city scale of $2,930 a year, the Veterans' Administration is offering nurses $3,740, they noted.

It was suggested that nurses, technicians, and other professional workers receive at least $150 a year more than the 1954–55 budget provides. Abraham D. Beame, the budget director, noted that the new scale would be higher than in 1953–54 because of the across-the-board rise contained in the new budget. He also argued that any further increase might touch off wage demands not only by city workers but by professional workers in the voluntary and Veterans' Administration hospitals.

Mr. Beame also opposed a recommendation that hospital workers on the afternoon and night shifts be paid a differential. He said that firemen, policemen, and other city employees would demand similar treatment.

Although Mayor Wagner reportedly was sympathetic to the proposal to alter the budget lines within the overall framework, he would not commit himself at this time. He suggested that the board meet again with him after the subject had been discussed with Dr. Basil C. MacLean, the new hosiptal commissioner who is to be sworn in Monday at 10:30 a. m.

The hospital department's 1953–54 budget is $114,336,029. It had asked for an increase of $25 million for the next fiscal year, but was allotted only $6,334,000 more.

What do you think of that policy recommended by the board, Dr. Cronin?

Dr. CRONIN. Mr. Chairman, I would prefer that Assistant Surgeon General Jack Masur answer your question, because Dr. Masur in his professional career in the last 23 years has spent a great deal of time in New York City as the director of one of the large hospital systems in New York City. I feel that he is much more competent than I am to answer with respect to the situation in New York City.

Mr. BUSBEY. All right, Doctor.

Dr. MASUR. Mr. Chairman, the dilemma in which the municipal hospitals of New York City find themselves at this time is a very complicated one. As a matter of fact, it was just this last Friday evening that I met with a number of superintendents of those hospitals and the commissioner of hospitals.

They have, as you know, about 20,000 beds, and some 35,000 employees in New York City, and for the past 10 years, perhaps 15 years, and, especially, within the last 5 years, they have had an extensive building program going on to replace some of their old institutions which, in some instances are over 100 years old, and which are now ancient, dilapidated things. They have embarked on a program for the replacement of those old hosiptals rather than spending great sums of money to remodel and improve them, and rather than come up with a lot of revamped old relics.

They have appointed one of the most capable hospital administrators in the country, Dr. Basile MacLean, of Rochester, Minn., as their hospital commissioner.

The salary for the commissioner, as approved in the administration's overall program, was raised from $15,000 to $25,000 a year.

They have not only an exceedingly high turnover of patients in their group of municipal hospitals but, indeed, in some instances, if I may use the term "occupancy rates" after all of the talk that we have had here about occupancy rates, their occupancy rates run up to 110 percent which means, from my own experience 20 years ago as an intern in Bellevue Hospital, means running patients down the hall, out into the corridor, and up to the elevator.

Now the administration in New York City has declared itself in favor of better wages and working conditions for all employees in the hospitals in the city of New York, and one of the most acute manifestations is in their hospitals which, because of the poor buildings they have and the crowded conditions which exist, and due to low salaries paid make working conditions there very unfavorable.

The dilemma, then, is do they spend their limited resources on paying more salaries for employees to try to compete with other institutions, not only in New York City, or elsewhere, or do they attempt to replace some of these very badly dilapidated facilities?

The rise in the number of patients cared for by the municipal-hospital system has been a steady thing, and that is a problem, the

answer to which the mayor and his advisers do not yet know, I am informed. This board action about which you read was taken after a great deal of deliberation, and they have apparently chosen to think that a salary raise would be the lesser of the two evils with which they are confronted. It is a serious problem.

Mr. BUSBEY. Dr. Cronin, do any of the hospitals named in this article participate in the Hill-Burton funds?

Dr. CRONIN. I do not know, sir. We would have to check on that.

Mr. BUSBEY. I gathered from this article that most of the construction work is already done. I just wondered if that was a wise policy to follow generally, to try to bring these salary levels of the personnel up at the expense of opening new hospitals.

HOSPITAL PERSONNEL SHORTAGE

I hear so many different agencies and people talking about the terrible conditions that exist because of the shortage of nurses, and I agree 100 percent with them, but we do not seem to be doing much to correct the situation. What does your Division do to try to keep the personnel, that is necessary to man these hospitals, abreast with the construction program?

Dr. CRONIN. Mr. Chairman, we do not have adequate funds with which to acquire personnel to engage in a very large program of any kind relating to hospital personnel. We do lend our assistance, which is assistance predicated on the experience of the personnel that we do have, through the Division of Nursing Resources in the Public Health Service, which is a very small Division made up of several very competent nurses, who are well aware of their total relationship in the role of the Public Health Service in trying to aid in any way they can in the acquisition of nurses for all fields of health.

We have no money to put into studies.

We frankly are in the position of a mendicant to get the State agencies to give us whatever information they can on a volunteer basis through a questionnaire form, and we are currently using it now to find out where the nurses are coming from to staff our hospitals.

We are well aware, because we do attend meetings with the other Federal agencies, of their nursing problems, but as a divisional program we do not have either the resources or the personnel to enter into a program of that kind.

I would like to point out again that under the basic Hospital Survey and Construction Act, as amended in Public Law 380, 81st Congress on October 25, 1949, there is authority for the Public Health Service on a grant type of basis to grant moneys to individuals, universities, and groups of individuals and associations to specifically study the development and utilization of hospital services, and we certainly would cover the personnel situation and also hospital resources and the promotion of coordination by administrative action, research, and study in the useful application of their results.

Now, as I testified yesterday, that proposal was presented to the Congress and in the House it was defeated by a vote of 79 to 78 3 years ago. Since that time we have not acquired any money for this purpose. The funds which are made available to us are, frankly, not

really sufficient to take care of the operational mandates of the Hill-Burton program now. Much as we would like to get into it we have had to do it on the basis of cooperation, frequently attending meetings after hours and on weekends, not in official time, at no expense to the Government.

Mr. BUSBEY. It did not take me long to come to the conclusion, after I had talked with a couple of dozen different administrators of hospitals on this nursing problem, that the one controlling factor, and it did not take any half million dollars' worth of survey to determine it, was the fact that the younger girls are not being attracted into the nursing profession because of the salary that they get after going through these years of training in comparison to what they could get in private industry and private employment.

Something, in my judgment, at least, has to be done to raise the salaries of the nurses in these hospitals if they are going to attract nurses to them. I think that is the fundamental problem involved here, and if we can overcome that in some way or another we will see a great many more girls taking up nursing training in the future. I do not know if that agrees with your views or not, but that is one of the conclusions I have come to.

Dr. CRONIN. Mr. Chairman, I agree whole-heartedly that the girls who are in the nursing profession, and who are today attracted to it should be paid commensurate with the duties that they perform, and the service that they render. There is no question about that, and, being a physician, I have a great feeling of attachment to these girls who dedicate their life to the service of mankind through the service of nursing. I think they are underpaid too, sir, but I do not think anybody has the total criteria for the shortage of nurses.

Mr. BUSBEY. No, I admit that there are many other factors, but I think that is one of the major ones.

Dr. CRONIN. I would like to call your attention to a publication entitled, "Meeting Your Hospital Personnel Shortage," from the Office of Defense Mobilization and the Health Resources Advisory Committee, August 1953. This was an official publication of that organization, and they cite here several statements about the increased demand for nurses which I think we are all aware of. Under the title, "Recruitment Is Good," they make several basic points which I think are very important. One is that:

> More nurses are practicing their profession than ever before. In addition, nurses who have retired from practice (mostly because of marriage) form a large pool potentially available in the event of a national emergency.
>
> A larger proportion of girls are entering nursing than ever before (the proportion now is higher than at any time except for the period 1943–45), which are the war years.

Mr. BUSBEY. I think that is self-evident because of the increase in population in the country and the increase in beds that we have in the hospitals. We have to have a larger number.

Dr. CRONIN. They go on to say:

> But, because of the low birth rate in the depression years, the number of girls who enter nursing school each year is now lower.

That is, in my opinion, a very important factor. They can pay these girls whatever they want to pay them, but if there are not enough ladies who want to go into the profession of nursing because there are not

enough ladies available, I do not see how the pay is going to help entirely in that situation.

They go on further to say:

> The average working life of a nurse is longer than ever before, largely because many more married nurses are working.
>
> The increased total volume of available nursing services, however, still does not meet the increased demands for nursing services resulting from the factors previously listed. There is, therefore, but one inescapable conclusion—there are not enough nurses to meet the hospital demand and there is no indication that there will be in the foreseeable future. This problem cannot be solved by maintaining the status quo and waiting for the return of the "good old days." It can be met only by modernization of our techniques of utilization.

What they have reference to there is that the nursing profession is aware of the situation. I know they are aware of this situation, and I know that they are doing whatever they can to define more specifically and exactly the duties of the nurse who has a R. N. degree.

The utilization in recent years of the so-called nurse's aide and the so-called auxiliary workers in the field of nursing is something that is receiving a great deal of consideration and a great deal of study. It is something that cannot be resolved overnight. It is something that has to come about by educational activities, not only in regard to the teachers of nursing, but in regard to what those teachers of nursing should teach; and, in regard to the medical profession, to acquaint them with the types of personnel that are available to help the medical profession in the care of patients, and, as a matter of fact, it goes through up to the hospital administrators.

Dr. MASUR. May I add just a word to that, Mr. Chairman? You will recall the other day when Dr. Hunt was testifying on behalf of the medical-care program that you asked him a number of searching questions concerning the availability of nurses and the utilization of nurses in this country, and at this point, sir, I would simply like to refer back again to a few studies which are being made by Miss Arnstein and her group in the Division of Nursing Resources. One study relates to the proper utilization of the head nurse.

There is a very popular booklet which has just come out, and they completely sold out their copies of the first publication, on the training of nurse's aides.

It is along these lines that I think your original inquiry was directed, Mr. Chairman, and I would like to say that with that limited staff I believe that the returns received are very great, and we are coming to a better understanding on the part of hospital administrators, and nursing administrators that insofar as we can quickly increase the supply of graduate nurses we aid a great deal in using those individuals effectively and continue them in service so that with adequate supervision we can get better nursing care.

Mr. BUSBEY. One reason I brought up this point in connection with this particular appropriation, even though we are mainly concerned with hospital construction, is because I think that there is not only a relationship, but a responsibility to see that if we are going to build beds, that the personnel is available to man these hospitals and put them on an efficient basis.

Dr. MASUR. There is no question about that.

Mr. BUSBEY. I have here stacked up before me quite a number of hospital nursing service books, and some of them are very fine.

Here is one I mentioned the other day, concerning which Indiana did a very fine job. Here is a very fine study of St. Mary's Hospital at Evansville, Ind. Here is one put out by the Federal Security Agency in 1950. Also a report on the current supply and future needs of the people of Illinois for nursing services. It was given to me by the Illinois State Nurses Association.

I would like to see someone bring about a national conference of all the people dealing with and interested in this nursing problem, to formulate a sound program for developing more nurses in training and get enough publicity throughout the country so that it will have a continuing effect upon the people that might be attracted to the nursing profession.

Mr. FOGARTY. Will the gentleman yield?

Mr. BUSBEY. Yes.

Mr. FOGARTY. I want to say, for the record, that I think you should be commended because you have been bringing to the attention of all of these constitutents in the Public Health Service this particular problem. Perhaps you could, in your report, direct the Public Health Service to call a conference on this. There is going to be a bill up today in the House for a White House Conference on Education, and I presume you could direct the Public Health Service or the Department of Health, Education, and Welfare to call a White House Conference on this, could you not?

Mr. BUSBEY. Well, it is a subject I am tremendously interested in, and I thank the gentleman for his remarks. Off the record.

(Discussion off the record.)

Mr. BUSBEY. Speaking of the utilization of nurses that have married and have families, there was one rather interesting project that was carried on by the King's Daughters' Hospital at Staunton, Va., that was working very well. They were able to purchase a residence adjoining the hospital and they provided someone to take care of the children of the married nurses. In that way they recruited quite a number of local nurses that had become heads of families. The children were given good care during the day when the nurses were working in the hospital.

I just mention that because that is one of the things I found they were doing.

Dr. CRONIN. We know that hospital, Mr. Chairman. That is one of our hospitals in this program, and the people of Staunton are very alert and enlightened on the health care of their people; and, they are doing a very fine job.

Mr. BUSBEY. Incidentally, I have some of the data I picked up at the hospital including their charter and bylaws and a brochure on how they went out in the community to raise their matching funds which, frankly, I think is a pretty good model for other communities to follow. They really did a mighty fine job down there and the community is very proud of their accomplishment. If you or anyone else would like to have these brochures I would be very happy to turn them over to you, because I think they did a mighty fine job down there.

Dr. CRONIN. We would like to have that material, Mr. Chairman, because we like to have as complete and as nice a file as we can on all of our projects.

Mr. BUSBEY. Well, I have other material in the office that you might just as well have, and I would be very happy to turn it over to you.

EFFECT ON FEDERAL CONTRIBUTIONS OF DONATIONS BY CONTRACTORS

Now, Dr. Cronin, I would like to explore for just a moment the policy in regard to the situation where the person or company that receives a contract on a Hill-Burton hospital kicks back a certain percentage of their profits to the hospital. That is not always, as I understand it, taken into consideration in the report of their fund-raising program. What have you encountered in that connection?

Dr. CRONIN. Well, the auditors have called to our attention on several of the projects—I cannot name them specifically—that there has been a question in their minds that a certain individual, in contributing to a hospital fund campaign, if he was a merchant in the town, for example, had contributed the worth of the particular item that was purchased from him, and the allegation, or the inference was that the hospital knew that they were going to get the article for nothing but, nevertheless, they claim credit for it on the list they submitted as costs. Obviously in such situations where an audit exception is taken, the auditor does that in the proper performance of his job, and we do sustain the auditor. In our opinion, and I am not the Office of the General Counsel, the kickback, as it is commonly referred to, is not a practice which is to be condoned in any way. It is wrong, and any instance of that kind which we may become aware of, and where we have sufficient evidence to support the allegations that it is a kickback, very definitely that sum of money that the Government participated in or was asked to participate in is not given to the project sponsor; and, I think that is the correct procedure.

Mr. BUSBEY. Without naming the specific instance, I found one situation where it was so flagrant that you could not miss it, because they made everybody kick back a certain percentage. They had it figured down to the penny on a percentage basis. So, I am glad to hear that you follow the policy of disallowing that.

Dr. CRONIN. In addition to that, Mr. Chairman, and I am not aware as an individual about the operations of the hospital if their basic motivations were on such a flimsy basis, it is obviously dishonest.

POLICY REGARDING SALE OF PROGRAM EQUIPMENT BY PROJECT SPONSOR

Mr. BUSBEY. I would like to get your thinking on another situation. In the hospital at Mena, Ark., which was built with the help of Hill-Burton funds, they had purchased some dental equipment, and then later on had sold that dental equipment to the hospital at Fort Smith, Ark., a hospital that had been built with the help of Hill-Burton funds. Where you find a situation like that, what is the policy of the Department on retrieving the Federal participation?

Dr. CRONIN. I know nothing of this project, as you have referred it to me. We could find out about it and put a statement in the record on it.

Mr. BUSBEY. I would like to have a statement for the record.
(The matter referred to is as follows:)

POLK COUNTY MEMORIAL HOSPITAL, MENA, ARK., PROJECT NO. 4

The Polk County Memorial Hospital, located at Mena, Ark., was constructed at a total cost of $324,157 of which the Federal share was $106,264. This included the purchase of equipment at a cost of $36,841.46. Included in this amount were items of dental equipment amounting to $3,001.17. The hospital, after being in operation for some time and after final audit of the project, found that the dental department was not utilized as planned and the equipment was surplus to their need. Sale of this equipment was made to the Sparks Memorial Hospital, Fort Smith, Ark., for $2,855.32. The money obtained from the sale of the dental equipment was utilized to purchase other esential equipment; in addition, the sponsor purchased over $2,000 worth of other equipment in which no Federal participation was involved. The per-bed cost of equipment for this hospital was less than the average cost for similar hospitals of this size.

The Office of the General Counsel advised, in their Monthly Summary for April 1953, that "The transfer or disposal of equipment for which Federal assistance has been provided and which normally takes place during the operation of a hospital or public-health center would not constitute a basis for recovery under section 625 (e) of the Public Health Service Act. However, if, as a result of such action, the hospital or center ceased to operate as such, the Federal Government would have a basis for action to recover the Federal share of the then value of such equipment, or of the entire project to the extent of Federal participation."

Mr. BUSBEY. I am just exploring this policy now. Take any hospital where we have participated, let us say, for equipment to the extent of $10,000. They find after they open the hospital that this $10,000 worth of equipment is not going to be used for one reason or another, and they sell it to another hospital for, we will say, 50 cents on the dollar, or $5,000, what is the policy of your division in a situation like that?

Dr. CRONIN. We have not run into that yet.

Mr. BUSBEY. Well, there was at least one situation, as I mentioned.

Dr. CRONIN. One of the important facts that should be pointed out is when did they do this, before the hospital was audited and the project accepted and closed out by the Federal Government, or after the project had been completely turned over to the community?

Mr. BUSBEY. All right, let us have the policy in both instances.

Dr. CRONIN. I would have to consult with legal counsel to give you a specific answer to that question, because I think that is a legal question.

Offhand, if the material before the hospital was opened was on the equipment list, say it was a dental chair, if that is what you refer to, and the project found that they had no use for the dental chair, and they wanted to acquire some other item of necessary, essential equipment, which, because of the limitation of funds they were unable to acquire, and they turned in or disposed of the dental chair and with the funds received purchased some other item of essential and necessary equipment I would think that would be a perfectly all right situation. But there, again, I say I would have to have the advice of legal counsel as to the rules and regulations from a legal point of view concerning the Federal Government. We do not make these decisions, Mr. Chairman, at my level or my headquarters level without the advice of legal counsel because we do not feel competent to do so, and legal counsel often ask for many other items of information concerning it which we do not have, and which we try to acquire.

We might point out that in the law, sir, in section 625, subpart E, and I will quote:

If any hospital for which funds have been paid under this section shall at any time within 20 years after the completion of construction (a) be sold or transferred to any person, agency, organization (1) which is not qualified to file an application under this section or (2) which is not approved as a transferee by the State agency designated, pursuant to section 623 (a) (1), or its successor, or (b) cease to be a nonprofit hospital, as defined in section 631 (g), the United States shall be entitled to recover from either the transferor or from the transferee (or in the case of a hospital which has ceased to be a nonprofit hospital) from the owner itself for an amount bearing the same ratio to the value (as determined by agreement of the parties, or by action brought in the district court of the United States for the district in which such hospital is situated) so much of the hospital as constituted an approved project or projects, as the amount of Federal participation bore to the cost of the construction of such project or projects.

Mr. BUSBEY. Getting back to my illustration: if a hospital purchases $10,000 worth of equipment, and that has been approved by everyone clear up to your office, and they do not use this equipment in the hospital, but instead sell it, what recourse has the Federal Government to retrieve their portion of the funds in a case like that? How would we know it, after the hospital is opened, and we have made a final audit, and given the full amount of the Hill-Burton funds to the hospital?

Dr. CRONIN. Let me answer the latter question first:

The only way we would know it is if somebody called it to our attention.

Mr. BUSBEY. If no one called it to your attention, what would be the situation?

Dr. CRONIN. We have no policing action.

Mr. BUSBEY. You would have no knowledge of it, and, therefore, there would be no recapture of funds?

Dr. CRONIN. We have no authority under the law, nor do we have funds available to set up a policing action after the project has been turned over by the Federal Government, through the State, to the project sponsor.

The selling of equipment before it is turned over does not mean that it is no longer a hospital project, and the question, of course, is at what point does it cease to be a hospital; and, there again, as far as I am concerned as administrator of the program, and in trying to be fair to everybody, I would have to have legal advice.

Mr. BUSBEY. But you will furnish for the record a complete statement on the situation regarding the sale of equipment by the hospital at Mena, Ark.?

Dr. CRONIN. Yes, sir; we will contact that hospital through our regional office in the State and ask them to make a statement for us.

DENMAR, W. VA., PROJECT

Mr. BUSBEY. I want to discuss in as much detail as possible, within the time limits which we have, the situation at Denmar, W. Va.

I asked that the complete file be brought this morning in case there was some detail which you wanted to refer to.

This was a very disappointing visit, I might say, Dr. Cronin. First of all, the original hospital there was opened in 1939, and the main building consisted of 125 beds. This is a regular tuberculosis hospital

for colored people. It is no criticism of your Division, because this was long before the Hill-Burton funds were being appropriated; however, in my opinion, it was probably one of the worst places a TB hospital could have been located. First of all, it is down in the valley between the mountains, where the fog, dew, or moisture, or whatever technical name might be used, does not rise until about 10 o'clock or 10:30, and it starts to settle very early in the afternoon.

The road going back to this hospital is an ordeal in itself to drive over, and I have driven in every State in the United States.

The closest Negro community is many miles from this hospital, which means that anyone visiting the hospital must leave the Negro settlement at a reasonably early hour in the morning in order to get back to this place.

Denmar, W. Va., consists only of the hospital. That is Denmar. There are no other inhabitants or facilities there of any kind, and in order to get back to the closest Negro settlement at night they have to leave rather early in the afternoon, which means that they cannot have much time with their relatives or friends, whom they went there to visit.

We participated in a project there with Hill-Burton funds to build an addition to this hospital, notwithstanding the fact that the old hospital was not being used to capacity; notwithstanding the fact that they should have had 12 registered nurses for the old hospital, and only had 3 at the time I visited the institution, and they were losing 1 of the 3 within a couple of days. They should have had 4 doctors, including a superintendent, and they only had a superintendent who was a doctor of medicine, and three part-time doctors who spend less than 2 days per month there. Notwithstanding this situation the State Board of Health of West Virginia and their planning division O. K.'d the project for Hill-Burton funds, and evidently the regional office and the Washington office must have approved it also.

When I was in Charlestown, W. Va., the State Board of Health of West Virginia was meeting, and I sat in on the board meeting for about 2 hours and discussed a great many questions with them. This new wing had been completed approximately 2 years when I had visited the hospital, and all the equipment that had been bought for this new wing was still in the original crates in which it had been shipped to the hospital and located on the various floors of this wing, without ever having been uncrated, let alone put into use, because there were no demands for the beds to put it in use.

Now, in addition to that, they built two very plush modernistic homes that were supposed to be used for doctors on the grounds. Of course, the only doctor they had was the superintendent.

In addition to that, they built a very plush modernistic nurses' home, what might be described as a ranch-type home, for 21 nurses. They have a private room for each nurse, and while we as a committee or you as a division are not directly interested in maintenance costs, I think it is worth mentioning in passing that while I was there in August they were getting ready to replace the entire roof of this nurses' home.

They had built a radiant heating system into the floors of the nurses' home and they were continually tearing up the floor trying to repair this system. Although it was a brand-new building,

the floors were in bad shape, the walls were cracking, which was going to cost money to maintain.

Now, the only reason I bring this up, Doctor, is to try to ascertain what can be done by your Division to prevent the Hill-Burton funds going into projects like I have just described.

Dr. CRONIN. Well, Mr. Chairman, from the files and the information which I have on the subject, at Denmar, W. Va., we had 2 projects there: West Virginia project No. 13, which is a 100-bed addition to a sanitarium for Negro patients, at a total cost of $480,000, and the Federal share was $160,000, which coincided with the Federal participating percentage at the time of the approval of this project under the law, which was one-third of the total cost.

The project did include minor alterations to the existing building of 146 beds. The justifications for the project, as presented to the Public Health Service regional office by the sponsor, through the State agency, and accepted by the State, which is the sponsor in the final analysis here, were approved.

It was justified on the basis of the number of tuberculosis beds needed in the State of West Virginia, which is considerable, because it is a State that has a population group in which tubercoulosis is particularly prone to be found, and that is in the nonwhite group.

Because of the terrain of the State, and so on, and the economy of the State, and the tubercular rate and so on in West Virginia, it creates a situation where there is a need for beds for the care of that disease, particularly among the nonwhite groups.

The State of West Virginia adequately justified the project in the minds of our regional office people, and the project was approved, and placed under construction.

It has been audited, and it was accepted by the auditors and the project turned over, in the final essence, to the State of West Virginia.

Now, project No. 23, which is the second project, is what is known as pickup project. In other words, the State of West Virginia had been doing some construction at that project, and we were asked to participate in the necessary amount of construction to complete the project, which under the law is authorized, and a legal Comptroller General's ruling on it at the time was in the affirmative.

There was also construction of a Negro nurses' home and residences for two Negro doctors. On the pickup project, the estimated cost of work completed was $107,000, and the estimated cost of work to be done was $48,000. The Federal share, then, would be one-third of the $48,000, or $16,000.

The final cost of the work that was done was $67,184.41. The Federal share, however, remained at the figure of $16,000.

The total cost of the project work done by the applicant without Federal assistance was $107,000. The work done with Federal assistance was $67,184.41.

The total cost, then, of the project, was $174,184.41, and the total Federal funds that went into West Virginia project 23 was $16,000, and that was the Negro nurses' home and residences for two Negro physicians.

Now, the letter that we received, and which is in the files, completely verifies many of the remarks which you said about the nonwhite population of the area.

The letter is a transmittal letter, dated June 30, and addressed to the Surgeon General, attention, Division of Hospitals.

Mr. BUSBEY. Was that June 30 of last year?

Dr. CRONIN. June 30, 1950.

Mr. BUSBEY. I see.

Dr. CRONIN. It was from our regional medical director in region 3, which at that time was Washington, which has included in its coverage West Virginia.

The first paragraph is a transmittal letter as to the introduction to the project, identifying it as a project, and forwarding parts 1, 2, 3, and 4, and all other documents and correspondence pertaining thereto, and stating there was given a Public Health Service approval for Federal participation in the amount of $16,000, which I previously mentioned, effective as of June 29, 1950, the date agreed upon by the Public Health Service, the applicant, and the State agency.

Paragraph 2, which is the significant paragraph here, states that—

> the State sanitarium at Denmar is for Negro patients, and the community is white, and that there are no living accommodations available in Denmar for the Negro staff at the hospital.

Mr. BUSBEY. May I interrupt? There are no accommodations in Denmar, nor for many, many miles around there.

Dr. CRONIN. All I know, Mr. Chairman, is what my staff advised me. They have been there, and I have not.

The letter further states that by providing living quarters for the staff outside of the hospital, although on site, the vacated space in the hospital enlarges the patient-bed capacity by 21 beds, and further states that the project covers the uncompleted portion of the nurses' home and doctors' quarters, and that 65 percent of the work has been completed, and that for completing the remaining 35 percent, Federal funds in the amount of $16,000 were being requested, and the letter goes on with other routine operational matters.

It winds up and says that the completion of the work will be done according to the Federal requirements. The project was completed on the basis that this project is eligible. It is an unusual situation.

Mr. BUSBEY. I have not raised the question of eligibility for the funds, but I raise the question as to what could be done to prevent Hill-Burton funds going into a project of this kind.

Dr. CRONIN. Well, I think, Mr. Chairman, we are faced with a problem here that really resolves itself to this:

Here, the State of West Virginia, who should know its problems better than we can, says we have a Negro hospital for the care of tubercular patients; we have a tuberculosis problem with the Negroes of this State; we have a dearth of facilities to care for such people, with such a disease, and we wish to build this institution, and we wish in the second project to continue with Federal help building the facilities that we are unable to complete ourselves; we are eligible under Hill-Burton Act from a technical point of view; which is all true.

Now, the question that comes up is whether or not that State will put the Negro patients in that hospital who have tuberculosis from all over the State, and will that Negro patient stay there?

Mr. BUSBEY. Along that line, have you any report on the occupancy, or whether or not this new wing has been opened to patients since I was there?

Dr. CRONIN. I do not. We do not ask for occupancy rates, because, again, we are not in a position to ask for those occupancy rates, at these hospitals, once that project is completed and turned over to the community, such as this has been, and after the audits are completed.

It is without the authority of the Hill-Burton Act for us to ask each one of these hospitals for that information, because these hospital administrators feel that that is prohibited under the act, section 635, which again says, "the Federal Government in no way will have anything to do with the operation or maintenance of this hospital."

When we inquire about occupancy rates it is interpreted to mean that the Feleral Government is coming in to check on them. Part of the success of the Hill-Burton program had been predicated upon the fact that the Federal Government, after the project is completed and turned over then to the sponsor, is not permitted to get into the operation or the administration of the hospital.

Right or wrong, that is the law.

Mr. BUSBEY. I am going to agree with that portion of the law 100 percent, because, as I have said many times in this committee and I probably will say it a great many more times in the future, I will not take a back seat to any Member of Congress for being one of the down-to-earth, 100-percent State-righters, but when we come across a situation where Federal funds are going into projects of this kind I think that we do have a responsibility of trying to at least show them the error of their ways. There was no justification for an addition to this hospital for Negro TB patients, although what you say is true, that they do have a problem of a total shortage of beds.

Dr. CRONIN. That is right.

Mr. BUSBEY. And, if this facility had been placed in any of a dozen locations which are close to the Negro population, it would have been filled 100 percent, and overflowing within no time, but the fact still remains that, located where it is, the Negro TB patients will not go there, and they cannot get the nurses nor the doctors to go there.

They could not do it with their own hospital, but still they went ahead and approved these funds for a new wing.

I do not hesitate to say that my conclusion, after discussing this with the State board of health at a meeting of the board, was not very favorable. First, I raised the question of why all of the Hill-Burton funds went into a State institution the first 2 years of operation of the program. They very frankly told me that they had no application for hospital projects, and therefore put all the money for the first 2 years in the State institutions. They used some of the funds for this project, which I do not think should have ever been built, simply because they did not want to turn any funds back to the Federal Government. They wanted to use them rather than return them to the Federal Government.

I think some of these things that I have explored during these hearings will come to the attention of the proper legislative committee, which in the House is the Interstate and Foreign Commerce Committee, and that it will at least study them over and check into it to ascertain if they want to make any recommendation as to amendments to the law as it now stands. I just hate to see funds wasted like this.

As I said, the equipment had been delivered, and was still uncrated after almost 2 years, when I visited the hospital, and, for all I know,

it is still standing there on the floor—beds, mattresses, and all the other items that go to make up the equipment of a hospital.

Dr. CRONIN. Mr. Chairman, these were the decisions of West Virginia, and in West Virginia I would like to point out that twice as much State money went into this project as Federal money. One other thing in regard to the lack of project applicants in the first few years in West Virginia. Each State has its own cultural pattern, and West Virginia has its own cultural pattern; and most of the hospitals in rural West Virginia are proprietary hospitals, because it is a mining State. They are not eligible under the Hill-Burton Act; and the nonprofit hospitals in West Virginia are not so numerous as they are in other States. The States do put Hill-Burton money into their own governmental hospitals, such as State hospitals.

Mr. FERNANDEZ. I did not quite hear that statement.

Did you say that the State put twice as much money into the project as was put in by the Federal Government under the Hill-Burton Act?

Dr. CRONIN. In this hospital, there was at least twice as much money put into the project which involved State funds. This is a State hospital—a State-sponsored institution, and under the Hill-Burton Act at that time the Federal share was fixed at one-third of the total cost.

So, the State had to put in at least two-thirds of the money.

Now, this project, in the first instance, would amount to $320,000. That is project No. 13 in West Virginia for the 146 beds, and the Federal Government put in $160,000, which was in that one-third of the total cost.

In the second project, the total cost of that project was $174,184.41, but the Federal Government's participation was only $16,000. So, in the aggregate, here, the State put in the sum of $320,000 in the first project, and $174,184.41, or over $600,000 of State money, whereas, the total Federal participating money that went into these two projects amounted to an aggregate of $176,000.

Mr. FERNANDEZ. It seems to me that that is a queer thing for West Virginia to do, if the assumption is to be made that they preferred to spend twice as much State money rather than to return the one-third which the Federal Government was putting up.

INDIANAPOLIS FOOD SERVICE CENTER

Mr. BUSBEY. Since we have been on this item so long, I am not going into the Indianapolis Food Service Center Building, Doctor, so much as I would like to, but there are a few things which I would like to clear up regarding that situation.

Incidentally, when I was in Indianapolis, I met with the entire planning board, as well as with the head of the medical school and the State director of public health, Dr. Burney, whom I understand was a former Public Health Service officer; was he not?

Dr. CRONIN. That is correct.

Mr. BUSBEY. Is Dr. Burney carried as a reserve officer of the Public Health Service at the present time?

Dr. CRONIN. Dr. Burney, Mr. Chairman, is a regular Corps commissioned officer. He is a career officer, and holds a commission in the Public Health Service of Medical Director, which is a comparable rank to that of a colonel of the Army, or a captain of the Navy. It

has been for many, many years an accepted policy in the Public Health Service that certain competent officers will be assigned at the request of the States to be their State health officers. For example, former Surgeon General Parron, for many years was the health officer of the State of New York.

We have several officers assigned to the States in that capacity.

Dr. Burney is at the present time on leave, without pay, from the Public Health Service, and assigned to the State of Indiana, and is serving in the capacity of commissioner of their State board of health, and director of health in the State government.

I would like to say further that Dr. Burney is a very capable officer, and very capable physician and health official.

Mr. BUSBEY. I arrived at that conclusion during my discussions and conferences with him in Indianapolis. I must say that I was very favorably impressed in all my conferences with Dr. Burney.

Do you have in your file on this Food Service Center Building any correspondence that would show that this project was turned down by the regional office in Chicago, after it was first submitted?

Dr. CRONIN. I do not think we have, specifically, such information in our files, and I know that this project was not turned down in our regional office in Chicago at any time. Questions were asked about this project, but it was not turned down, and it was not approved at the Federal level either for the simple reason that approval is not given to projects at the Federal level in any instance, as that is a delegated responsibility by the Surgeon General down through the official channels to the regional medical directors in the regions.

I think one of the successes of our program, again, is predicated upon the fact that we have decentralization of authority from the Surgeon General.

Mr. BUSBEY. When I was in Chicago checking this situation in the Chicago regional office, I was rather disappointed that they had no record of telephone conversations between Indianapolis and Chicago, and they had no record of conferences except in isolated cases; but there were many telephone calls and there were many conferences between Chicago and Indianapolis on this project. There was almost no record of the calls or conferences or the material that was discussed at these conferences.

Is that general practice, Dr. Cronin?

Dr. CRONIN. Very definitely not, Mr. Chairman, I think that only the principles of good administration would require any administrator at whatever level he is in any program to keep records of the contracts that he has made, or which were made with him in regard to a specific project for just purposes of good recordkeeping and good administration, and I am surprised to find there is no record of that.

I am very much surprised to find that, because I know that such records are usually kept.

Mr. BUSBEY. Well when I examined the file in the regional office, that was my finding. They were not able to produce anything.

Dr. CRONIN. They had no record whatsoever?

Mr. BUSBEY. They have a few records, but very few, in comparison to all the telephone calls and the conferences which were held on this matter.

Dr. CRONIN. We do not monitor telephone calls.

Mr. BUSBEY. This is not a case of monitoring.

Dr. CRONIN. I know.

Mr. BUSBEY. This is a case of discussing problems that arise in connection with a project, and it is done to expedite matters, rather than writing letters. The contents or summaries of these conferences or a summary of the telephone calls would take the place of a letter, and I think it is very important that such material should be in the files. That does not enter into the problem of monitoring telephone calls at all.

Dr. CRONIN. The only reason I put that in, Mr. Chairman, was that we were asked if we had recordings of our telephone conversations by the investigator, and we told him we did not, either at the headquarters level, nor did I assume that we had them at the program level in the field, because we do not believe in that type of administration.

That is the only reason I offered that remark. I agree with you, very definitely.

Mr. BUSBEY. I am glad to have you volunteer that statement, because as far as I am concerned one could monitor any telephone call which I make.

Dr. CRONIN. I have no objection to a call being monitored, but it is a question of stenographic time, with me, in this program. I heartily agree with you that any program staffman should keep records of important and pertinent conversations concerning projects, but to stenographically record telephone calls, I think, is a waste of time.

Mr. BUSBEY. Has a final determination been made in regard to questions of eligibility in different areas of this building, such as the gift shop?

Dr. CRONIN. That project has not been finally approved, in all of the segmented parts of the project, Mr. Chairman.

Mr. BUSBEY. It was dedicated as principally a student union building, and it is located in downtown Indianapolis. I think if I were in the hotel business in Indianapolis, I would have entered a protest about some of the facilities in this building as competing with my business.

Dr. CRONIN. Mr. Chairman, I have heard this project referred to as a student union facility before, and I would just like to say that so far as the Public Health Service is concerned, our participation was in a food service center, and the project scope was defined as to rendering services implied in that title, and we did participate in the food service center, but we did not participate in the student union building aspect.

Mr. BUSBEY. In light of your experience and the volume of discussion and correspondence, which have gone on over a period of a few years regarding this building, do you think helping to finance this type of building was the original purpose of the Hill-Burton Act?

Dr. CRONIN. Mr. Chairman, I would like to quote here the declaration of purpose of title VI of Public Law 410.

Mr. BUSBEY. I am asking you for your own opinion. I know what the law is.

Dr. CRONIN. It is predicated upon this.

Mr. BUSBEY. I know that you must administer the law, and I appreciate that, but I am just trying to get your general thinking on this question, irrespective of the law.

Dr. CRONIN. If you will put your question, sir, this way——

Mr. BUSBEY. I will let you rephrase it to suit yourself.

Dr. CRONIN. If you are asking me if a project was presented to the program through the proper channels for approval of a facility which would render a centralized food service, and incorporated in it have facilities for a gift shop which was going to serve 5 hospitals on a campus such as this 1 does, I definitely would approve such a project; because I think, considering now, too, that the gift shop was not out of proportion to what was necessary, because after all, gift shops are accepted today as a convention part of a modern hospital, and in instances where they do have 5 hospitals such as the 5 hospitals on this campus, and they can by centralizing in a central food service facility the basic preparation of vegetables and some meat, and fish products, provide extra space in those hosiptals for patient care, and provide an economy of operation, as I know it does, I definitely would approve such a project.

Mr. BUSBEY. Well, I cannot accept that as substitute for my question.

Knowing this building as you must know it——

Dr. CRONIN. I have never been in this building.

Mr. BUSBEY. You have had a lot of conferences on it, though, and you have had a lot of correspondence regarding it.

Dr. CRONIN. There is no doubt about that.

Mr. BUSBEY. Taking this building as it is, with all its ramifications and the Federal program participating in this section, and not participating in that section, but participating in another section, and all of its problems, do you think the original intent of the Hill-Burton law was to participate with Federal funds in projects of this kind?

Dr. CRONIN. Mr. Chairman, in the first place, the final scope of that project has not been defined, nor approved. In the second place, the original intent of the Hill-Burton law, in my opinion, was to afford the necessary physical facilities for furnishing adequate hospital, clinic facilities and similar services to all our people.

Mr. BUSBEY. I do not know why we have to go wandering off into something which is not pertinent. I asked a simple question. Give me a yes or no answer, if you can, please.

I know you are quite familiar with it, and my simple question is: Do you think this type of building is a proper expenditure of Hill-Burton funds?

Dr. CRONIN. In terms of what I understand that type of building to be, the answer is "Yes, sir."

Mr. BUSBEY. Well, without any qualifications, the answer is "Yes," because you understand what the building is to be used for, certainly.

Dr. CRONIN. That is right.

Mr. BUSBEY. It is down in black and white in your office.

Dr. CRONIN. Yes, sir; and I do not understand it to be a student union building, Congressman.

Mr. BUSBEY. I do not have it here, but I do have a program which was sent to me, along with an invitation to the dedication of the building. The program definitely uses the term "student union building."

I will ask permission that that program be inserted into the record at this point.

(The matter referred to is as follows:)

PRESENTING THE STUDENT UNION AND FOOD SERVICE BUILDING, THE INDIANA UNIVERSITY MEDICAL CENTER, INDIANAPOLIS, IND.

THE STUDENT UNION AND FOOD SERVICE BUILDING, INDIANA UNIVERSITY MEDICAL CENTER, INDIANAPOLIS

The weary intern just back from a ward check, the offduty nurse, the dental student taking a break from his books, anxious parents keeping a nightlong vigil by a sick child, the gray-haired doctor back on the campus for a week's special course. These are some of the people whose needs will be served by this building.

The conference and dining room facilities make this a "clearinghouse for medical knowledge," providing for doctors and hospital staff members a sorely needed place on a crowded campus to meet and discuss progress in research, hospital care, better training for the State's future doctors, dentists, nurses, and health technicians. Thus, from this building, as well as from laboratories and classrooms, will come better health for Hoosiers.

Overnight guest accommodations, heretofore not provided, are made available for outpatients—Hoosiers who come from far corners of the State for treatment that does not require hospitalization. Outpatients and their relatives can get reasonably priced meals in the building's cafeteria and snack bar, a service that long has been needed at the medical center.

Student-faculty center: The building also serves as a student and faculty center for other branches of the university located in Indianapolis, such as the Indianapolis division of the school of law, the downtown center for adult education, the graduate division of social service, and the normal college of the American Gymnastic Union. These university branches, as well as the schools of medicine and dentistry and the training school for nurses, are represented on the student board that advises on the operations of the building.

Designed by Eggers & Higgins, of New York, the university's supervising architects, and Edward D. James, Indianapolis architect, this 8-story brick structure, with all its furnishings, cost approximately $4,150,000. Of this amount $2,200,000 was raised by Indiana University through the sale of bonds that will be repaid by the income from the building. The United States Public Health Service appropriated for food service facilities $1,450,000 under the Hill-Burton Act, which provides funds for hospitals and hospital services. State funds for its construction amounted to $500,000.

Functional modern: The design of the building is functional modern, with no wasted areas. Materials were chosen for durability as well as beauty. Three-fourths of wall areas are cinderblock, brick, and wood paneling, all of which is cheaper than plaster and less costly to maintain. Acoustic tile is of the type that may be repainted without loss of efficiency. The tile of the swimming pool and corridors is unglazed solid color that will not show wear. Windows have sliding aluminum frames that outwear mechanical windows. Floors are of asphalt tile.

Thus, the completed structure represents what modern architecture can do to produce beauty at reasonable cost through the use of newly developed materials. It stands as an example of richness of design and color produced simply by modern methods and master craftsmen to serve the people of Indiana for many generations.

Dining facilities: The cafeteria seats 446 persons at one time, with the most modern equipment providing for speed in self-service by patrons. The room contains a folding platform so that the area may be converted into an auditorium for large group meetings of an educational or entertainment nature. Its accordion partitions can convert the room into smaller sections.

The snack bar is open 18 hours a day for between-meal and late-hour service. It seats 99 persons for complete short order and modified cafeteria menu.

Other dining rooms include 1 seating 200 and 7 smaller ones for groups of 14 to 20, which provide facilities for dinner meetings and conference groups.

Living facilities: Twenty-four single rooms, 14 twin studio-type rooms, and 2 suites, each with a living room and bedroom, provide accommodations for 56 overnight guests. In addition, there are resident accommodations for approximately 80 hospital personnel and staff members, whose duties in many instances require them to be on emergency call. These accommodations for emergency staff members have been greatly needed at the medical center.

Recreational facilities: The cafeteria dining room and the larger dining room on the second floor can be converted for conferences, parties, dances, and other activities related to the medical center.

The general lounge seats approximately 140, serving as waiting space for hospital visitors, as well as for the cafeteria.

The swimming pool for students, faculty, and staff is 30 by 75 feet, equipped with high and low diving boards.

Other facilities: The book shop provides such supplies, medical, and dental equipment, and gifts as may be desired by students, faculty and staff, and visitors at the medical center.

A barbershop with 3 chairs and beauty shop with 3 booths provide services for staff and hospital patients.

A public address system permits visitors and staff to be called.

This building and its facilities add greatly to the services of the medical center in its never-ending battle to safeguard and improve the health of Hoosiers.

Dr. CRONIN. I would like to point out, sir, that we did not participate in that section of the building.

Mr. BUSBEY. I am just saying that that is what the building was dedicated as.

Dr. CRONIN. It is a combined building, in which there was some Federal participation, and some construction without Federal participation.

AMOUNT OF FEDERAL PARTICIPATION

Mr. BUSBEY. That is right; and the participation was changed on numerous occasions from the original filing of part I up until the filing of part IV; is that right?

Dr. CRONIN. Yes, sir; and as is true in many other projects, Mr. Chairman, because as the project is developed, and the scope becomes more definitely clear, and change orders come about, that is the normal procedure.

Mr. BUSBEY. The original amount agreed upon for Federal participation, and you can correct me if I am wrong, as I understand it, was $800,000. What is the estimated final Federal participation, Doctor?

Dr. CRONIN. I do not think we have arrived at the final estimate or the final participation, but the current participation, and I will read it to you from our statistical reports, is $1,452,235.

Mr. BUSBEY. Does your file contain a letter of January 14, 1953, that deals with this situation and some of the problems that were confronting your Division at that time?

Dr. CRONIN. To whom is the letter addressed and by whom is it signed; do you know?

Mr. BUSBEY. No; I do not know by whom it is signed, but I imagine it is addressed to someone in the division here in the Washington office.

Dr. CRONIN. Is it from headquarters to the region, or region to headquarters, do you know?

Mr. BUSBEY. I imagine it would be from the region to headquarters.

Dr. CRONIN. We have quite a file.

Mr. BUSBEY. I would just assume it might be addressed to Chester Lund. Do you have a letter of January 14, 1953, addressed to Mr. Chester Lund?

Dr. CRONIN. It would be very unusual for our field staff to address Mr. Lund. It would be addressed to the Surgeon General.

Mr. BUSBEY. Do you have a letter from anybody addressed to Chester Lund as of that date?

Dr. CRONIN. We would not normally have any letters addressed to Mr. Lund concerning this project; because our channelization does not go to Mr. Lund; it goes from the regional office to the Surgeon General, attention of the Division Chief.

(Discussion off the record.)

Mr. BUSBEY. Will you make inquiry of Mr. Lund regarding a letter of January 14, 1953, and, if there is such a letter, make it available to the committee?

Dr. CRONIN. We will, sir. Do you want it in the record?

Mr. BUSBEY. I do not know. Just make it available to the committee and, after we have seen the letter, if we think it has any bearing on the situation, I will ask permission that it be included at this point; otherwise, I won't.

(The committee was advised that no letter such as that referred to could be found.)

Mr. BUSBEY. I have some 50 questions on the Indianapolis situation that I am passing at this time in order to expedite the hearings.

Mr. Fogarty, do you have additional questions?

DONATIONS BY CONTRACTORS

Mr. FOGARTY. I think we had better go into this question of kickbacks. The chairman has previously referred to kickbacks on some of these Federal projects and to me that charge is a very serious one and should be substantiated if we are going to leave it in the record. I think if such a thing has happened that we should find out in what community it happened, the names of the contractors and the merchants and architects and anyone else concerned in that particular community who kicked back any sum in order to gain favor in the construction of that particular project. If that is so, maybe we should have a special hearings on it; because, in my opinion, it is a very serious thing.

I know of many cases where private institutions build buildings, that the contractor makes a substantial donation to the college or hospital, or whatever institution is building the building, after he was the contractor. But to say that an architect or contractor who does work for an institution and then makes a donation, either before or subsequent to the awarding of the contract—to accuse him of kicking back just does not sit right with me.

Mr. BUSBEY. I will say to the gentleman that with the permission of the committee, I will put the details into the record at this point.

(The information referred to follows:)

PAWNEE COUNTY MEMORIAL HOSPITAL, PAWNEE CITY, NEBR., PROJECT NO. NEBR.-21

There is set forth below a representative number of transactions referred to:

Date	Expenditure		Amount	Date	Contribution amount
	Payee	Item			
				Citizens Bank	
June 30, 1951	Yost Implement Co.	I. H. home freezer	$524.95	July 3, 1951	$163.23
July 3, 1951	Wherry Bros.	Dinette set	225.00	July 3, 1951	76.00
Aug. 31, 1951	F. Boren	Extractor	382.97	Sept. 5, 1951	75.00
Aug. 20, 1951	Cummins Typewriter Co.	Adding machine	99.50	Sept. 5, 1951	79.50
Jan. 14, 1952	Wherry Bros.	Kitchen equipment	296.60	Jan. 17, 1952	48.90
Jan. 17, 1952	Frank Boren	Laundry equipment, $183.50. Dormeyer mixer, $39.95	223.45	Jan. 17, 1952	7.45
Jan. 16, 1952	Pawnee Lumber Co.	Posts for parking area	13.84	Jan. 17, 1952	1.16
Jan. 16, 1952	S. & G. Store	Dishes, etc	13.74	Jan. 17, 1952	1.40
Jan. 16, 1952	Haas Store	Kitchen utensils	18.74	Jan. 17, 1952	2.00
Jan. 28, 1952	Warnecke Locker Co.	Maytag washer	124.95	Jan. 29, 1952	124.95
July 8, 1952	Sawyer-Barclay	Sheets and pillowcases	388.30	July 8, 1952	43.30
July 10, 1952	F. Boren	Air cooler	516.00	July 11, 1952	100.00
				Farmers Bank	
Sept. 28, 1951	Sawyer-Barclay	Linens	$477.84	Oct. 19, 1951	$29.92
Nov. 23, 1951	Boren Shop	Simplex Washette	1,213.14	Nov. 23, 1951	307.71
Dec. 14, 1951	D. E. Herries	Frigidaire	229.75	Dec. 19, 1951	229.75
Mar. 28, 1952	Robert Haas	Maintenance equipment	58.04	Mar. 28, 1952	12.59

The figures requested from the Division of Hospital Construction have been supplied for the record. During the hearings, I was mistaken when I used the State of Kansas. It was only after I had returned to the office to look over some of the notes which I made in the field last summer that I ascertained that the town was Pawnee City, Nebr.

The expenditures and contributions, as supplied me by the Department, prove without a doubt, at least to my own satisfaction, the point I was trying to make during the hearings. Take, for instance, on July 3, 1951, Wherry Bros. sold the hospital a dinette set for $225; and, on July 31, 1951, they made a contribution of $76. Again, on January 14, 1952, kitchen equipment in the amount of $296.60 was purchased from Wherry Bros.; and, 3 days later, they made a check for $48.90 to the hospital.

To cite another example, look at the extractor bought on August 31, 1951, from F. Boren for $382.97; and, 5 days later, he made a contribution of $75 to the hospital. On July 10, 1952, an air cooler was purchased from F. Boren for $516; and the following day, a contribution was made to the hospital for $100.

Any child in grammar school would know that contributions to hospitals are not made on the basis as shown by this table of purchases and contributions. My interpretation of the transactions I have mentioned, as well as the others listed at the Pawnee County Memorial Hospital, is that they could mean only one thing, as far as I am concerned, and that is, the hospital was not given the benefit of the discount, as is the general practce, when the hospital purchased various items that were needed to equip it. If, for instance, the Federal Government is paying 50 percent of the cost of a project, we should only be paying 50 percent of the price of the article, less the discount, and not on the full retail price. Anyone who wishes to may call this a contribution, but to me it is still a kickback at the expense of the taxpayers.

Mr. FOGARTY. All right, sir. I think they should be named and I think the State of Kansas——

Mr. BUSBEY. That is my recollection, without checking my files. If I should be in error and it was some other State, we will put the correct State in. I do not want to do any State that is not involved an injustice.

Mr. FOGARTY. I think the State board, the medical board, or whatever you call it in the State—we should put the names of each and every one of those members into this record; because they apparently were the ones who originally O. K.'d this particular project and they should know about it.

INVESTIGATOR'S REPORT REGARDING DONATIONS

Now in the investigators' report—and the more I read this report the less I think of it—on page 20 they say—

Donations received by hospital owners by architects and others were not eliminated from the total cost in which Federal funds shared.

Now these are some examples:

Nebraska project No. 9. Architect's donation $2,851.88.
Maine project No. 5, donated by consultant $5,000.
Maryland project No. 11, architect's contribution $16,802.53, out of his fee of $55,802.53. The gross fee was at the rate of 8.25 percent of the work done.
Kentucky, project No. 46, architect's contribution $3,750.

Although the investigators do not say it, it would seem to me that they are accusing these architects and this consultant in Maine of kicking back these sums of money in order to get the job. I think it is a very unfair thing to infer in a report such as this. I think architects in general are a high type profession and they would not ask or expect to kick back part of their fee in order to get a job, as inferred by the investigators in this report——

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. Yes.

Mr. BUSBEY. I think the inference from this portion of the report the gentleman from Rhode Island has read is that the Federal participation in this project was too large and should have been reduced by this amount. And they refer to it as "donation," I see, instead of "kickback," like I labeled the other situation.

Mr. FOGARTY. I know a lot of people made kickbacks in the past although they thought they were making a contribution or donation. They called them contributions or donations, but they actually were kickbacks. That is why I contend the word "kickback" is a very serious charge to make against anyone. In my opinion, it is one of the worst things that any individual can do. It is not the individual in my opinion who is to blame; it is the outfit that takes it from the individual.

Mr. BUSBEY. I will have to take the full blame and responsibility for the terminology "kickback." That was my interpretation of it.

Mr. FOGARTY. If that is your interpretation, I think on page 20, instead of "donation," they should have put "kickback." That is my interpretation. It means the same thing.

Mr. BUSBEY. I cannot accept the definition of donation and kickback as meaning the same thing; because in the instance I refer to they call them "contributions," I am sure and not "kickbacks."

Mr. FOGARTY. What is the difference between "kickback" and "contribution"?

Mr. BUSBEY. Certainly in the report of the task force they did not put any such interpretation on it. They labeled it "donation."

Mr. FERNANDEZ. I think they clearly infer that it should have been taken off of the cost, and there is no other interpretation that can be given to it except that it was a part of the cost.

Mr. BUSBEY. That is right. Their interpretation is that inasmuch as they reduced their fees so much by these donations, the total cost in which Federal funds shared should have been reduced.

Mr. FERNANDEZ. Any public-spirited merchant who sells hospital equipment might make a donation. Do you mean to say that donation then should be taken off of the cost?

Mr. BUSBEY. Let me have your question again.

Mr. FERNANDEZ. If a public-spirited merchant sells equipment to a hospital and then, as a public-spirited citizen, contributes, say, $5,000, do you mean that should be deducted and the Federal Government should not match it?

Mr. BUSBEY. No; but I think that is a little different than when they say the architect's donation in this Nebraska project No. 9 is $2,851.88, and on Maryland project No. 11 it was $16,802.53. That is cutting it pretty fine as a donation—getting down to odd pennies.

(Discussion off the record.)

Mr. FERNANDEZ. I think the proper test is whether or not any such fees or costs were padded. And if they were padded then, of course, to that extent they should be deducted. When these investigators say it should be deducted, that clearly infers that there is padding and, if that is the case, it is a very serious charge.

Mr. BUSBEY. I would like to repeat again that I questioned this situation the same as I have many situations during the past few days, to ascertain the policy with respect to the expenditure of these funds. It was not to pick out any particular individual or State or community, in any way, shape, manner, or form. I think it is very important for this committee to ascertain what the policy is of the Hospitals Facilities Division in allowing these or having deductions made from the total cost in determining the share of the Federal funds that go into these hospitals. That is the only thing I have in mind.

Mr. FOGARTY. I can see your point. It is just that word "kickback." I have been conscious of that word for many, many years.

Mr. BUSBEY. Well, would it make the gentleman from Rhode Island any happier if I would change the word "kickback" to "donation" or "contribution"?

Mr. FOGARTY. No; let us leave that "kickback."

Mr. BUSBEY. O. K.

Mr. FOGARTY. And for these investigators to accuse the architects on these projects of kicking back that amount of money I think is a very unfair charge to make.

Mr. BUSBEY. I do not think any one of the members of the committee can tell what was in the minds of the investigators, when they wrote the language they used in their report, which was "donation." They might be willing to agree that it was a "kickback," but I do not think we have a right to put that interpretation on it without finding out from them just what they meant. I do not think we have a right to put that terminology in their minds.

Mr. FOGARTY. I am not putting it in their minds; I am just charging them with meaning that when they wrote this report. And I

think it is a very unfair thing to do unless they had contacted some of those individuals. That is not the only unfair thing in the report.

I see they also quote Members of Congress. I know some Members of Congress are going to be very upset with the quotes that these investigators have taken out of hearings before the committees, or out of the Congressional Record. I know Members are going to ask "Who are these investigators; what are they doing; who hired them and for what purpose are they quoting individual Members of Congress?" I know if I was quoted by one of these individuals, I would have a lot to say about it.

ANTIKICKBACK REGULATION

Dr. CRONIN. Mr. Chairman, in regard to the policy that you mentioned, I think I should indicate what that is.

We operate under a lump-sum contract for the construction aspects of the program and in that there is a very definite antikickback regulation, as defined by law. That is on the wage earners participating in the construction.

Now, in the purchase of equipment on the open market, it is not under contract. I mean, frequently it becomes a matter of donation.

Now, according to the General Counsel's ruling, if the donation would be determined to be an abatement in the amount of the fee, such an exception is sustained. The auditor usually presents that. However, we must be ruled by the fact that unless we can determine that, we hold the total amount of the fee is an allowable cost.

It is based on the evidence presented and if the evidence presented indicates there was very definitely a dishonest procedure, then we do definitely require the sponsor does not get Federal money to cover that aspect of the cost which is identified as relating to the project.

Mr. FOGARTY. It seems to me if I were in the contracting business in my own community and a communitywide campaign was put on by sponsors for the construction of a hospital, and I was a fairly successful contractor, I would make a contribution to that campaign—maybe before I received the contract and maybe after I received the contract. If I were an architect and was a fairly successful architect, as most of them are, I believe, I would make a contribution or donation to a campaign such as this. And I do not see anything wrong with it. I think they should be commended for any contribution that they make, but I do not think they should automatically be accused, because they received the contract and they had given, say $5,000—I do not think anyone should accuse them of it being in the form of a kickback for receiving that particular contract.

That is all I have to say.

Mr. BUSBEY. Mr. Fernandez, before we take up the supplemental for $25 million and before we get into "Salaries and expenses," do you have any further questions?

Mr. FERNANDEZ. Just one question. Assuming that consultant's fee was $5,000 and as a public spirited citizen he said to the hospital "I will make a contribution of my $5,000 fee," is there any legal reason why that should be deducted from the cost in computing the Federal participation?

Mr. THEWLIS. On the basis of the statement presented, we probably would hold the individual had intended to donate his fee; in other

words, that there would not be a cost of $5,000 to the owner. That is basically the answer as to whether it would be considered part of the cost.

Mr. BUSBEY. What about Federal participation?

Mr. THEWLIS. There would be no Federal participation.

SUPPLEMENTAL REQUEST FOR HOSPITAL CONSTRUCTION

Mr. BUSBEY. Now we have before us the supplemental request for "Hospital construction" of $25 million. Without objection, we will put the narrative description on page 3 of the justifications in the record at this point.

(The matter above referred to is as follows:)

GRANTS FOR HOSPITAL CONSTRUCTION

There is submitted herewith a request for $75 million for this appropriation for fiscal year 1955. A request for $50 million of this has heretofore been presented. The increase of $25 million will allow the hospital survey and construction program to more effectively achieve its purpose of providing for facilities to assure adequate hospital services for the total population throughout the States and Territories and more expeditiously reduce the deficiency in hospital beds and related facilities.

Current State and Territory estimates indicate that there is a national deficiency of between 694,000 and 813,000 acceptable hospital beds and related health facilities throughout the country.

As the program progresses during the current fiscal year, it develops that approximately $20 million of the $50 million included in the original request would be utilized for projects started in previous fiscal years and carrying over into fiscal year 1955. In view of this, only $30 million would be available for new projects. Based on an average estimated cost of $16,000 per bed, of which the sponsor would contribute about one-half, approximately 3,750 additional hospital beds with a few related health facilities would be provided.

Taking into consideration that the national population continues to increase at the rate of over 2,500,000 annually, a corresponding increase in hospital beds is needed, estimated at 30,000. In addition, the attrition and obsolescence of our existing general hospitals require at the least an additional 6,000 beds per year. These two factors alone indicate a need of 36,000 beds annually. Thus it was felt advisable to request at this time an additional $25 million for construction of a slightly larger portion of these needed facilities. The $55 million that will be available for new construction will provide for approxin ately 6,875 beds with a few public-health centers.

REVISION OF ESTIMATED HOSPITAL-BED DEFICIENCY

Mr. BUSBEY. In the second paragraph, Dr. Cronin, it states:

Current State and Territory estimates indicate that there is a national deficiency of between 694,000 and 813,000 acceptable hospital beds and related health facilities through the country.

Was not this known at the time the 1955 budget was submitted, or is it something new?

Dr. CRONIN. At the time the 1955 budget was submitted, those figures quoted here are not the exact figures; these figures quoted here are the most current figures as of January 1, 1954.

Mr. BUSBEY. What were the figures at the time the 1955 budget was submitted?

Dr. CRONIN. They were somewhat more than this 813,000 beds, but not appreciably more.

Mr. BUSBEY. You give the minimum and maximum here. There is a spread from 694,000 to 813,000. What was the spread according to your figures at the time the 1955 budget was submitted?

Dr. CRONIN. That spread, Mr. Chairman, is due to the difference of subtracting from the 813,000 total beds the 119,042 beds in the hospitals of the Veterans' Administration, Indian Service, and Public Health Service, serving the population at that time. But based on my recollection, the spread at the time of the preparation of the initial budget was about the same figure.

Mr. BUSBEY. Will you check and supply the figure you had at the time, for the record?

Dr. CRONIN. Yes, sir.

(The following information was supplied:)

The hospital bed deficit figures upon which the original page 7–2 of the 1955 budget request was based are:

Estimated bed deficit (all categories)	850,000
Less civilian beds in Federal hospitals	117,000
Net deficit	733,000

Mr. KELLY. The difference in figures on total hospital needs at the time the 1955 budget was prepared and the redefinition of need in the later estimate does not occasion the sending of this supplemental estimate. In the President's message as submitted at the time the 1955 budget was prepared, including the administration's legislative program, it was indicated the hospital-construction program would be strengthened and extended through the enactment of new legislation which would broaden and make more specific the purpose for which appropriations could be spent. It now appears that the prospective rates at which the new types of construction may be gotten underway are considerably slower than originally anticipated. In order to assure that the total volume of hospital construction will not decline, it now is recommended that the appropriation under existing law be increased.

REVISION IN ESTIMATED COSTS OF PROJECTS CARRIED OVER FROM 1955

Mr. BUSBEY. Now, in the third paragraph of the justifications on page 3 you state:

As the program progresses during the current fiscal year it develops that approximately $20 million of the $50 million included in the original request would be utilized for projects started in previous fiscal years and carrying over into fiscal year 1955.

Why is that true, Dr. Cronin; do split projects enter into this?

Dr. CRONIN. These are all split projects. That $20 million is the sum that is accounted for by split projects.

Mr. BUSBEY. How much did you estimate would be used from 1955 funds for projects started in previous years at the time the 1955 budget was presented to Congress?

Dr. CRONIN. Approximately about the same amount.

Mr. BUSBEY. Do you have the figure?

Dr. CRONIN. We can try to get it. I am sure it will be about the same amount, because split projects are known in advance of the year, and we know the size of the project and about what it is going to take

to back it up. And I think that $20 million is essentially an accurate figure.

EFFECT OF INCREASE IN POPULATION

Mr. BUSBEY. Then in the last paragraph you say:

> Taking into consideration that the national population continues to increase at the rate of over 2,500,000 annually, a corresponding increase in hospital beds is needed, estimated at 30,000. In addition, the attrition and obsolescence of our existing general hospitals require at the least an additional 6,000 beds per year. These two factors alone indicate a need of 36,000 beds annually.

Is this something new that was not known at the time the 1955 budget was submitted?

Dr. CRONIN. No. Those factors were also known at that time. I think the basic reason in the situation is that the fundamental economic pressures limited requests at that time when the program was first gotten up. We still had the Korean incident that had not been completed; we knew or felt there would be additional moneys requested in the defense picture, and all that has been changed from the time of the preparation of the original $50 million request and the request today.

Mr. BUSBEY. These justifications do not seem to show any change in the situation that existed at the time the original request was submitted. It is a rather unusual justification of a supplemental appropriation, as I understand supplemental appropriations.

Mr. KELLY. May I comment on that, Mr. Chairman?

Mr. BUSBEY. Yes.

Mr. KELLY. You will recall the original President's budget which included $50 million in our request for appropriation, which we can justify, also included language proposed for later transmission of $62 million for hospital construction after the enactment of legislation which the administration proposed.

Mr. BUSBEY. But that is in a different field than what this original $50 million request was for and what the $25 million supplemental request is for.

Mr. KELLY. $50 million was the original estimate out of a total of $112 million as the amount which would be spent primarily in the hospital phase for general hospitals, and the balance primarily in categorical hospital facilities. This supplemental constitutes a revision of that estimate, that within the $112 million, $75 million will be primarily in the general bed category, and a reduction in the categorical grants from $62 million to $37 million.

GENERAL HOSPITALS IN LIEU OF CHRONIC HOSPITALS

Mr. BUSBEY. What this amounts to in essence, then, is we are contemplating with this $25 million to build more general hospitals as a substitute for chronic hospitals under the new legislation?

Mr. KELLY. In the fiscal year 1955; yes, sir.

Dr. CRONIN. I would like to say one thing, that is, it is not only for general hospitals that the original Hill-Burton authority exists; it is for general, tuberculosis, mental, and chronic disease hospitals and related health facilities, such as public health centers and these segments of hospitals that are essential to the operation of the hospital.

The $50 million requested was estimated on the basis that a certain tempo of program could be carried on. Then when this new program came along, as was testified yesterday by Mr. Larmon and again by Mr. Kelly, the speed at which the requested or suggested request in the President's health message and later budget submission of $60 million additional for construction, which was part of the $62,650,000, $2 million being for survey and planning and $60 million being for salaries and expenses, it is now determined, because of the time difference in the estimates that when and if that type of program could be gotten under way, that now the program can be gotten under way at a much later date and that the amount and speed at which construction can be entered into in these categorical types of projects, as defined in the new proposal, and bearing in mind, too, that in these categorical types of construction they do overlap to some extent with what is eligible in the present Hill-Burton setup, particularly chronic disease hospitals—keeping that in mind, it is felt that the additional $25 million can be utilized for the building not only of general hospitals, but also for mental, TB, and chronic hospitals.

Mr. BUSBEY. Do you propose requesting a change in the total authorization in the new legislation, then?

Mr. KELLY. No; the new legislation would still be for $60 million; but, with respect to the fiscal year 1955, the request would not be for the full $60 million of authorization.

And I should correct my earlier statement on general beds to say we would change from $50 million to $75 million under existing legislation, and then reduce the proposed supplemental under the new legislation.

Mr. FOGARTY. As far as this particular program is concerned, I want to commend the Health, Education, and Welfare Department for bringing in this additional $25 million request. I think it is about time that they recognize that the Congress wants this program continued and they do not want it sidetracked by this other program we have authorized, so far as the House is concerned, for $60 million a year.

I think Congress has expressed itself unanimously now on three occasions in passing and extending the original Hill-Burton Act, and I think it is about time that the powers that be in the Health, Education, and Welfare Department took cognizance of the law and the intent of Congress.

This is not the only change that the Department has made rather recently. There have been a lot of changes down there. I do not know whether they are getting worried about what is going on, or not. Perhaps this entire program in a roundabout way is to provide employment because of the unemployment that exists in the country at the present time. Despite the last report on unemployment, and while I grant that unemployment is going down, at the same time employment in the mills and factories, which are the real index of that phase of our economy, is still going down. So our country is not in the good shape economically that we are led to believe by the leadership at the present time.

I do not know whether this $25 million has something to do with that, or not, but it was testified before that there is also a request for some 30 or 40 million dollars for school construction which they

did not see fit to include in their original budget but which is now on its way, although I am sure there is no change in the justifications from the time when this budget was made up.

AVAILABILITY OF PROJECTS TO UTILIZE AMOUNT REQUESTED

Is there any question in your mind about this $25 million being utilized. Are there enough projects in the States on which this $25 million can be expended?

Dr. CRONIN. I think this $25 million will be totally utilized.

Mr. FOGARTY. Is there any request from the Bureau of the Budget or the President for a corresponding increase in the salaries and expenses for your work in this program?

Mr. KELLY. That is pending in the Bureau of the Budget now. We sent it up the other day. An additional $250,000 was the estimate.

Mr. FOGARTY. For salaries and expenses?

Mr. KELLY. Yes, sir.

INVESTIGATORS RECOMMENDATIONS FOR SALARIES ANE EXPENSES

Mr. FOGARTY. That is an interesting amount; because I remember these investigators suggested a cut of $250,000 in your salaries and expenses item.

Dr. CRONIN. I did not know about that in this item.

Mr. FOGARTY. Are you sure you did not see this report before you testified before the Bureau of the Budget? They recommended a cut of $250,000 in this year's salaries and expenses and here the President is asking for an additional $250,000.

Mr. KELLY. Yes, sir. It seems hard to believe.

Mr. FOGARTY. That is a cut of $500,000.

Mr. KELLY. It seems hard to believe that a cut would be recommended; because in analyzing the salaries and expenses of this division of administration of the program, we found that the regional offices were not staffed for the administration of this program but, with the limited funds, required a centralization of the staff in certain regional offices to handle the program for several regional offices.

Mr. BUSBEY. Are there any questions, Mr. Fernandez?

Mr. FERNANDEZ. Of course, as the chairman pointed out awhile ago, it is impossible to say what was in the minds of the investigators who wrote that report.

Mr. FOGARTY. I find also that they go further than what I have mentioned. In this new program of $62,500,000, they recommend that the entire $650,000 for salaries and expenses be cut out. So that would make a total of $900,000 and there would be $1,150,000 difference in what the President of the United States has recommended and what these investigators recommend if your current request is approved by the President.

Mr. BUSBEY. I am sure the gentleman from Rhode Island appreciates the fact that there is no request for appropriations for the new legislation before the committee.

Mr. FOGARTY. But I notice that these investigators saw fit to make that statement, that the $650,000 that was to be submitted in a later budget document to advance this new program should not be allowed by this committee, and I thought, because it was in their recommen-

dation, that I should make some mention of it now, and just point out how far apart they and the President of the United States are.

Mr. BUSBEY. The chairman would like to state that it is very encouraging, as far as he is personally concerned, to see someone, at least, thinking about economy and suggesting places where we might start saving money.

Mr. FERNANDEZ. Even though the recommendations are in the nature of clairvoyance.

Mr. BUSBEY. If that is your interpretation.

Mr. FOGARTY. It was my understanding that the President ran on a platform of economy in Government.

Mr. BUSBEY. That was my platform.

Mr. FOGARTY. I do not think the President has gone back on his word; I do not think he has broken his word. I hope you are not charging that the President did not live up to the platform of economy when he recommended these additional appropriations.

Mr. BUSBEY. Did someone accuse the President of going back on his word?

Mr. FOGARTY. No, but when I made mention of the difference between the recommendations of the President and these investigators, you returned with the suggestion that you were glad to see someone who was interested in economy, and I drew from that that the President was not interested in economy, but these investigators were.

Mr. BUSBEY. Well, the gentleman's conclusion was entirely in error. I was merely making the remark that it was very gratifying to me personally to find someone who was thinking in terms of economy and making suggestions where the committee might save some money. What we do, of course, is our determination.

Mr. FOGARTY. How can they be so far apart when they are part and parcel of the same team? I cannot understand how they could be so far apart. I am standing with the President, and I am going to support the President.

Mr. BUSBEY. I would not be surprised. You will support any program that increases the appropriations.

Mr. FOGARTY. As long as it helps to save lives, I positively will, and I do not care how much it costs. If it is going to help save lives in this country I am for it, and I do not care if it takes $300 million or $500 million a year to provide an adequate appropriation, to get proper health facilities for the people of this country, which I think they deserve. If it is going to save lives or if it is going to help solve the health problems of this country I am not going to quibble over whether it is $25 million or $100 million.

Mr. BUSBEY. I will agree with the gentleman as to the worthwhileness of these programs to health, but I still think the committee has a responsibility to the taxpayers of this country to see that the programs are administered economically and efficiently.

Mr. FOGARTY. I agree with you 100 percent, and I know it is also within the purview of this committee's obligations that when our President sees the need for a supplemental to the extent of $25 million and we see the need for $50 million additional, I know that that is also our responsibility, and that we ought to appropriate $100 million this year instead of $75 million to meet that responsibility. I do not think that is something we should avoid, but we are avoiding

it because we do not like to go before the House with an increase in our appropriations.

Mr. BUSBEY. We will recess until 2 o'clock.

AFTERNOON SESSION

SALARIES AND EXPENSES

Amounts available for obligation

	1953 actual	1954 estimate	1955 estimate
Appropriation or estimate	$1,200,000	$875,000	$750,000
Transferred from "Salaries, expenses, and grants, National Cancer Institute, Public Health Service," pursuant to Public Law 452	12,000		
Adjusted appropriation or estimate	1,212,000	875,000	750,000
Reimbursements from other accounts	5,978		
Total available for obligation	1,217,978	875,000	750,000
Unobligated balance, estimated savings	−8,074		
Obligations incurred	1,209,904	875,000	750,000

Obligations by activities

Description	1953 actual	1954 estimate	1955 estimate
1. Operations and technical services activities	$1,102,152	$772,000	$658,235
2. Administration	107,752	103,000	91,765
Obligations incurred	1,209,904	875,000	750,000

Obligations by objects

Object classification	1953 actual	1954 estimate	1955 estimate
Total number of permanent positions	171	125	108
Full-time equivalent of all other positions	1	1	1
Average number of all employees	173	122	105
Average salaries and grades:			
General schedule grades:			
Average salary	$5,921	$6,032	$5,997
Average grade	GS–8.5	GS–8.6	GS–8.5
01 Personal services:			
Permanent positions	$1,093,454	$784,047	$674,868
Other positions	6,445	5,894	3,119
Regular pay in excess of 52-week base	3,338	2,489	2,013
Total personal services	1,103,237	792,430	680,000
02 Travel	64,304	54,770	51,715
03 Transportation of things	9,677	2,850	1,385
04 Communication services	2,396	2,400	2,000
05 Rents and utility services	160		
06 Printing and reproduction	7,366	6,750	4,000
07 Other contractual services	10,425	9,000	6,000
08 Supplies and materials	8,465	4,800	4,300
09 Equipment	2,644	1,200	300
13 Refunds, awards, and indemnities	378		
15 Taxes and assessments	852	800	300
Obligations incurred	1,209,904	875,000	750,000

Analysis of expenditures

	1953 actual	1954 estimate	1955 estimate
Unliquidated obligations, start of year	$108,911	$67,376	$48,000
Adjustment in obligations of prior years	1,249		
Obligations incurred during the year	1,209,904	875,000	750,000
	1,320,064	942,376	798,000
Deduct:			
Reimbursements	5,978		
Obligated balance carried to certified claims account	87		
Unliquidated obligations, end of year	67,376	48,000	48,000
Total expenditures	1,246,673	894,376	750,000
Expenditures are distributed as follows:			
Out of current authorizations	1,136,550	830,000	702,000
Out of prior authorizations	110,073	64,376	48,000

Mr. BUSBEY. The committee will come to order.

SALARIES AND EXPENSES, HOSPITAL CONSTRUCTION SERVICES

Statement of Dr. John W. Cronin, Chief, Division of Hospital Facilities, before the Labor-Health, Education, and Welfare Subcommittee of the Committee on Appropriations

Mr. Chairman and members of the committee, this request is for $750,000 to administer the Hospital Survey and Construction Act in fiscal year 1955. A substantial reduction below the fiscal year 1953 level was made in this appropriation last year. In line with the policy of reducing overall Government expenditures, it is proposed that a further reduction, from $875,000 to $750,000, be made for fiscal year 1955. This will have to be accomplished by reductions in staff and expenditures for other items, together with the absorption of periodic and longevity increases.

The $750,000 requested will be utilized to pay for a central office and field staffs who are, essentially, specialists in the programing, planning, design, construction, and equipment of hospitals, health centers, and related facilities. Orderly development of a hospital program is essential. With continuance of the construction phase of the program, mandatory functions must be carried on, such as approval of annual State plan revisions, review and approval of construction plans, specifications, contract documents, surveillance of bid and award procedures, project inspections, and approvals of requests for Federal payment.

The salaries and expenses item for this appropriation is, in my opinion, at a very low level for the present fiscal year. I believe the $750,000 requested for fiscal year 1955 will provide for no more than the minimum services essential to carry out mandatory functions. Any reduction below the $750,000 would endanger the safeguards which we are required to exercise in protecting the Government's investment and insure compliance with the provisions of the law.

BUDGET REQUEST

Dr. Cronin, for salaries and expenses of your Division, the request that you are justifying, is $750,000, or a decrease of $125,000 from 1954; is that correct?

Dr. CRONIN. That is correct, sir.

Mr. BUSBEY. What did you request of the Bureau of the Budget?

Dr. CRONIN. $875,000.

POSITIONS BEING ELIMINATED

Mr. BUSBEY. How many positions, and what type of positions, are being eliminated in this reduction?

Dr. CRONIN. In this reduction, Mr. Chairman, the type of positions which will be eliminated are practically all types of positions that we have on the staff now, so far as category positions are concerned.

Specifically, we would drop an architect at the departmental level, one health program specialist, whose duties are to analyze and prepare for the approval of the Surgeon General the State plans that come in, and to assist in the general operations of the program; an architect at a grade 12 level, whose primary duties are to assist in the operational aspects of the Technical Services Branch as they pertain to specialized types of inquiries in relation to mental hospitals; a public-health program specialist at the grade 12 level, who would do similar work to the other specialists which I described in analyzing the State plans and in preparing clarification questions and recommendations, and so on, concerning those State plans, and in the routine operations of the Division in the Program Operations Branch; 1 clerical assistant, who is a grade 2 clerk; 1 nurse-officer at the full grade in the commissioned corps, who currently is working on the whole field of chronic diseases, would have to be dropped.

Those 6 people would be dropped, or 6 positions, dropped out, at the departmental level.

Mr. BUSBEY. That is in Washington?

Dr. CRONIN. That is in Washington, sir.

Mr. BUSBEY. All right.

Dr. CRONIN. Then, in the field we would have to close the Denver regional office, which serves the States of Colorado, Wyoming, Montana, Idaho, and Utah, and we have one man in the category specialty of mechanical engineer. He also serves at the present time the regional office at San Francisco, which covers the States of Arizona, Nevada, California, Oregon, Washington, Alaska, and Hawaii. That is a particularly serious loss, because we know that the mechanical engineering aspects of hospital construction is about roughly 60 percent of the total building from a construction point of view, and these projects have to be reviewed.

We would also drop the construction engineer in the Denver regional office. We would be required to drop a construction engineer in the Dallas region. We would drop a health-program specialist in the Denver region, who is a person with medico-economic and socio-economic training, and background.

We also would have to drop the three clerks in that Denver regional office whose duties are to carry out the clerical duties related to that particular operation in that region.

In addition to that, the one senior grade officer who is the physician program director in the Denver region, would also have to go. We have 1 position of temporary employment at the $2,775 level in the Kansas City region that would have to be dropped also.

That would represent nine people altogether in the field.

Now, that would amount to the $100,573, which would be the specific reduction in the operations and technical services.

In addition to that, we would have reductions in other items, such as "Travel," "Transportation of things," "Communication services," "Printing and reproduction," "Other contractual services," such as those related to the maintenance of the regional office, automobiles, and so on, and supplies, materials, equipment, taxes and assessments

which are required under the existing laws. So, we would have a total reduction down to meet the reduced total estimate, with the necessary adjustments in regard to regular pay in excess of a 52-week base, and the additional reduction at the departmental level of another public health program specialist and 2 clerks, which would get us down from our current $875,000 which we received, to go along with the program of $65 million, to $750,000 in salaries and expenses, which is predicated upon a program of $50 million, which is $15 million less than the program which we have at the present time.

For that reason, we will be forced to get down to that $750,000, but bearing in mind that there is also a reduction in the total money for grants.

PENDING SUPPLEMENTAL REQUEST

Mr. BUSBEY. Has there been any revision by the Bureau of the Budget to take into consideration the supplemental of $25 million for construction?

Mr. KELLY. There is now pending before the Bureau of the Budget, Mr. Chairman, a request for consideration of an increase in salaries and expenses commensurate with the increase in the program.

Mr. BUSBEY. You do not mean that because construction funds are being increased by 50 percent that there would be a 50 percent increase in the salaries and expenses?

Mr. KELLY. No. The workload which would stem from the increase in program is taken into consideration and we recognize the basic staff would be increased by only those related to the work on the program.

Mr. BUSBEY. Dr. Cronin, if this decrease were to stand, how many positions would that make in Washington, and how many in the field, which you would lose?

Dr. CRONIN. The reduction would be in Washington; and 8 full, and 1 temporary employee in the field; and, that temporary employee is on a part-time basis.

PERSONNEL FOR RESEARCH AND DEVELOPMENT

Mr. BUSBEY. How much of your request would be used for the payment of salaries and expenses of units assigned to develop design standards, nurse utilization data, and other types of research projects?

Dr. CRONIN. We do not have that separated that way, Mr. Chairman, because the type of operations that you have described do not exist in the division as an entity.

The people who are in the division are hired for the primary purpose of the carrying out of the mandates in the law, both in the field and at the headquarters level, and all of our work is in relationship to the operational aspects of the program.

As far as any basic research in terms of pure research that is going on, we are not in a position to do pure research, because of the limitation of the funds available.

So, our technical services and people who are in the categories of architects, construction engineers, and so forth at the field level have very specific program functions related in the field.

Those in headquarters have program functions relating to jobs at the staff level, to back up the field.

For example, we also have in Washington one electrical engineer for this whole program, and he is the only electrical engineer in the program. We have one structural engineer, and he is the only structural engineer in the program.

These are necessary at the headquarters level to answer questions which the construction engineers in the field find are beyond their basic competence. They send in and get information from our people at the departmental level, and all of our technical people have very specific operational activities.

Also, the people in program operations, such as our nurse officer and our hospital accounting expert are people who not only have specific operational problems in relationship to the program in the field, but also have specific operational assignments at headquarters in a staff capacity, so that we can present a total program as I am sure the Congress intended, at the time of the passage of the Hill-Burton Act.

PERSONNEL FOR PROJECT REVIEW AND RELATED ACTIVITIES

Mr. BUSBEY. How much, in total, of the request, will be spent in review and approval of construction plans, specifications, contract documents, surveillance of bids, award procedures and project inspections?

Dr. CRONIN. We do not break our program operations into that type of cost analysis. It never has been done in the program.

It would be a very difficult thing to do.

Mr. BUSBEY. Could you give us some kind of a rough estimate of that?

Dr. CRONIN. I would say that practically everybody on the staff, including myself, has a function in those areas. That, very definitely, is I think an accurate description of the program.

NUMBER OF ENGINEERING INSPECTIONS

Mr. BUSBEY. How many engineering inspections are usually made by Federal engineers from the time a project is begun until the final payment of Federal funds?

Dr. CRONIN. I suppose you have reference to onsite inspections of the construction work as it is in progress?

Mr. BUSBEY. That is right.

Dr. CRONIN. We attempt to have our regional office engineer get to every project at least once during the period of construction. We also have specific problems that come up for the electrical engineer, and the structural engineer, and when the call comes in from the field to the regional office for that specific type of competency, we do send our man out because of his competency to try to solve the problem.

The thing that I would like to point out is that in our program operations, because of the limitations of funds, we do not have in each of the seven regional offices that we are operating a mechanical engineer on each staff.

We have, I think, a situation which is administratively very undesirable, and functionally, practically impossible. For instance, the regional office in New York City has a staff of 5 people consisting of 1 architect, 1 mechanical engineer, health-program representative, 1 construction engineer, and 1 program director, and several clerical

people. The clerical people do not travel, but these professional people are charged with what I think is a terrific responsibility and I, frankly, do not think they can do their job. They are covering the 15 States consisting of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virgina, Virginia, North Carolina, and Puerto Rico, and the Virgin Islands. That represents approximately one-third of our total program in project numbers.

I know it is impossible for these people to carry out the responsibilities to even a minium degree of performance which is required under the law.

It is because of this cutback in funds that this has existed this year, and which has forced this type of administration, which I deplore.

In addition to that, our regional office mechanical engineer in Dallas, Tex., who normally was hired to cover the projects in New Mexico, Texas, Oklahoma, Arkansas, and Louisiana, but who because of the shortage of our administrative funds has to cover projects in Kansas, Missouri, Iowa, Nebraska, South Dakota, North Dakota, and Minnesota, and there, again, I think it is an impossible situation to get around to all the projects in that area.

It is practically an impossibility.

In our regional office, in Denver, Colo., we have one mechanical engineer who was hired to cover the projects in the States of Utah, Colorado, Wyoming, Idaho, and Montana, but again because of the shortage of funds he is also required to take on the additional workload served by the San Francisco regional office, which consists of California, Nevada, Oregon, Washington, Alaska, and Hawaii.

There are just, frankly, Mr. Chairman, not enough hours in the day nor days in a year for these people to carry out the job that is functionally theirs to do. We are in a very bad position in regard to that.

RECOVERY OF FUNDS AS RESULT OF INSPECTION

Mr. BUSBEY. In the past, when completed projects have been found to be unsatisfactory upon inspection, what effect has this had on the final payment of Federal funds, and have you recovered any Federal funds because of unsatisfactory construction?

Dr. CRONIN. The final inspection, Mr. Chairman, is done by the States basically. There is no requirement in the Federal law that the Federal officials must inspect that project at any time. This program is primarily a program in which much of the administration of it has been delegated to the States, and the State agencies. There is a Federal audit at the time the project is 95 percent complete.

Mr. BUSBEY. Well, the audit is a little different than the construction inspection?

Dr. CRONIN. Now, yes, sir. I would like, though, to say that occasionally the auditor in making his final checkup, in his administrative comments, comments upon some item that is related to the engineering or construction field, and when we become aware of that we take them up with the project sponsor through the State and inquire as to what is the proper thing to do, and try to get it done.

Now, the inspection by the Federal official is done at no set time in the program. We do it when we can, and "when we can" is limited entirely by the time available to that man.

I would like to say that there is an inspection under this law, and that is the inspection that is done for Federal payment purposes. As you know, the project sponsor, in order to get payment, must request the State for an inspection for payment purposes, and that inspection is carried out by the State's representative. In those States that have them, they are construction engineers. These men go to the projects, look the project over, and then the State certifies to the Federal officials in our regional offices that the project is in accordance with the contract document entered into, and agreed upon by the representative of the sponsoring group, by the State official, and by the Federal official representing the Surgeon General; and then, upon the presentation of these certificates of inspection for payments purposes, the funds to the projects are freed from the Federal Treasury and paid to the sponsor. That type of an inspection service is the State's responsibility, as outlined in the law. Reason for administration being in PHS rather than a construction agency.

Mr. BUSBEY. I have a pretty good idea, and I am sure that the committee has, as to what your answer might be to this next question, but so that we will have something in the record, why cannot the review and approval of construction plans and specifications be handled more efficiently by another unit of Government, such as the Public Buildings Administration, that has had much more experience in the construction field?

Dr. CRONIN. Well, Mr. Chairman, at the time of the passing of the hospital survey and construction program, in the hearings on this act, or bill, at that time that question was brought up as to whether or not this program more properly belonged in a construction agency of the Federal Government.

There was testimony from representatives of those construction agencies that in their opinion the program properly belonged there. However, the Congress in its wisdom and at its decision, decided that this program properly belonged in the Public Health Service because, in essence, this program is not primarily a hospital construction program.

This program, by title, is not called a hospital construction program, but is called the hospital survey and construction program.

The purposes of the act, as stated in the law, were not primarily to build buildings, but primarily to see that facilities were available for the hospital and health services necessary to provide appropriate and adequate services for all the people. Therefore, feeling that this program is in essence a health program, and that the building of buildings, which are vehicles of service, and vehicles of hositpal care, and the building of beds, are but symbols of hospital services, and hospital care, the Congress decided that this program properly should be under the administrative jurisdiction of the Surgeon General.

My personal opinion is that that is correct.

PROGRAM OPERATIONS BRANCH

Mr. BUSBEY. What are the functions and accomplishments of the Program Operations Branch, and the Hospital Equipment Branch?

Dr. CRONIN. The function of the Program Operations Branch is to carry out that segment of the total programs operations and I would

like to say that although the Programs Operations Branch is by title designated as program operation, it does not do all the program operations necessary in the administration of this program. A great deal of the program operations in this program are carried out in the other three branches, the Technical Services Branch, the Equipment and Supplies Branch, and even the Evaluation Reports Branch, and in the Office of the Chief, which is in essence itself a program operation.

The functions of the people who are indicated as belonging in the Program Operations Branch as it is set up administratively is to, first of all, review the plans as submitted from the States, which are the designated State plans of the 53 jurisdictional districts, which we have under the act.

Their duty is to review those plans and make suggestions as to modifications, clarifications, and improvements which can be called to the attention of the States. Further, these plans are, by law, required to be revised periodically and by regulations, required to be revised annually.

Each of these revisions must come in via the regional office to headquarters, as is required, for approval and review. In addition to that, the routine housekeeping functions of a program of this size, $1.8 billion, are quite considerable.

All of the information inquiries that come in from our regional offices have to be answered primarily in the Program Operations Branch. All the inquiries that we receive, and I can assure you that there are numerous ones from private citizens, from organizations, from associations, from official agencies, and so forth, concerned with the Hill-Burton program, and from Members of Congress, are prepared and answered in the Program Operations Branch. Also in that Branch we have the specialized facilities of our nurses who are people who have such competency in the field of nursing and care in hospitals; and also in that Branch we have the technical competency in the field of hospital administration and hospital accounting activities.

That is very brief, and undoubtedly I have left out some of our funcitons, but that is the function of program operations. That Division has a small staff considering the size of the program, which includes 2,200 projects, and they do what they can, Mr. Chairman.

HOSPITAL EQUIPMENT BRANCH

Mr. BUSBEY. What are the functions of the Hospital Equipment Branch?

Dr. CRONIN. The Hospital Equipment and Supplies Branch is a very important branch, Mr. Chairman.

It has three people in it, which consists of the Chief of the Branch, who is a pharmacist by training and by experience, and who has been a hospital administrator and a hospital pharmacist, and who has been in the Federal Government for over 30 years, and he is responsible for the preparation of or for the review, in the final analysis, of any problems on equipment that may come to headquarters as a result of questions in the field by field personnel, who are, as I described before, architects, mechanical engineers, construction engineers, and health program representatives.

We have no equipment people in the field. It is very necessary and essential, then, that we have at headquarters an Equipment and Supply Branch that can help and advise when we have meetings of our field staff, and outline to those people who are doing the best they can in an area of competence, that they are not entirely trained in, but who by experience have become fairly proficient in these technical problems.

The second man in the branch is also a pharmacist who has had a great deal of experience in hospital equipment and supplies.

The third person in the branch is their clerk. A lot of the questions I have been asked at this hearing are predicated upon the investigator's report on equipment items, and that branch is a very essential branch to us, and I think it is at a minimum.

We would like to increase that branch, particularly in the area which we had before so that it would include an individual who is a dietitian. She is currently out at the clinical center, and her name is Miss Jones, who is a very able person, and who was with us until the clinical center opened, and her services were needed there. We did not have enough money to keep her. We need someone who is more competent than we have in that very essential part of a hospital operation, which is the food service aspect of the hospital, as it relates to the equipment of such items which are so costly as stoves, cooking ranges, garbage disposals, and so on. It is a very important function.

FUNDS FOR POSITIONS OUTSIDE DIVISION

Mr. BUSBEY. How many positions outside of this program will this request provide for?

Dr. CRONIN. There are no positions, Mr. Chairman, that are outside of the program.

Mr. BUSBEY. What about these 12 positions in the Bureau of Medical Services, and the 3 positions in the Bureau of State Services?

Dr. CRONIN. The character of this program is such, and the size of it is such, and the organizational setup in the Public Health Service is such that many of the administrative, and particularly the budgetary fiscal functions necessary to the proper conduct of this program, are carried on at our Bureau level.

In the organization of the Bureau of Medical Services, of which we are a component part, the individuals in that particular area of activity are located at the Bureau level under a Bureau budget officer, and they help prepare the budget after they receive instructions from myself as Chief of the Division, and carry on the technical details of the budget preparation. Also, at that level we have necessarily in the Office of the Chief of the Bureau an Associate Chief who has the responsibility, among other things, for the area of operations of this program. In the Bureau of State Services in their fiscal activities, and since they make and handle the allotments necessary to the States under this program, the three people there are those who are responsible for making the allotments to the regions handling the statistical figures that relate to the fiscal operations of the regions pertaining to this program and also in relationship to keeping those figures up to date, so that we will be able to know where we are as we go through the year, day by day, as far as money spent and unobligated balances, and so on, are concerned. That staff of three people is essential in that operation.

We also have the liaison with the auditor at the department level through the Bureau of State Services, and these three people who are in that particular Bureau are not in our Bureau.

Mr. BUSBEY. These 15 positions make up about 15 percent of the total number of positions, and that, at first blush, at least, seems to me just a little high.

Dr. CRONIN. Well, Mr. Chairman, it is our entire fiscal and budget staff, and the budgeting on this program and the fiscal activities of this program, as I said before, is considerable in handling not only the $607,500,000 in the total program, but keeping track of the $1,250,000,000 of matching money from a figure point of view.

In my opinion these people, in numbers, are not in excess of what is required, at all.

Mr. BUSBEY. That is all I have on salaries and expenses.

Mr. Fogarty?

RECENT BUDGET ACTIONS

Mr. FOGARTY. What did you request of the Bureau of the Budget, Doctor?

Dr. CRONIN. $875,000 to go along with the $50 million program.

Mr. FOGARTY. In 1953, when we appropriated $75 million, we allowed $1.2 million for salaries and expenses; is that correct?

Dr. CRONIN. That is correct.

Mr. FOGARTY. As I understand it, there is a request before the Bureau of the Budget now for an additional $250,000 for salaries and expenses because of this additional request of $25 million for construction; is that correct?

Dr. CRONIN. That is correct, sir.

Mr. FOGARTY. So, that will give you $1 million for salaries and expenses for a $75 million program?

Dr. CRONIN. That is correct.

Mr. FOGARTY. Which is $200,000 less than you had in fiscal year 1953?

Dr. CRONIN. That is correct.

Mr. FOGARTY. So, if the Bureau of the Budget allows you the $250,000, and this committee allows the full amount, that will amount to $1 million for salaries and expenses for this program, provided the program is $75 million, as the President has requested, and that would still be $200,000 less than you had to operate with the last time you had $75 million to disburse?

Dr. CRONIN. That is correct.

Mr. FOGARTY. Is $1 million enough?

Dr. CRONIN. I think we can do the job that is required of us with $1 million for the total $75 million program.

Like any administrator of a program, there are many things that we see that should be done, but one has to be realistic, and do the best he can with what you have, and my position is to defend the total request.

The decisions have been made, and I think we can do a creditable job with the $1 million. I am a little fearful—I am definitely fearful—of anything less than that, sir.

Mr. FOGARTY. That is all, Mr. Chairman.

Mr. BUSBEY. If there are no further questions, gentlemen, that will complete the hearing on this item.

We thank you very much, gentlemen.

Dr. CRONIN. Thank you very kindly, Mr. Busbey.

THURSDAY, MAY 20, 1954.

ASSISTANCE TO STATES, GENERAL

WITNESSES

DR. JACK C. HALDEMAN, ASSISTANT CHIEF, BUREAU OF STATE SERVICES
DR. DAVID E. PRICE, ASSISTANT SURGEON GENERAL
ROY L. HARLOW, CHIEF FINANCE OFFICER
RUSSELL R. LARMON, ASSISTANT SECRETARY, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SUPPLEMENTAL ESTIMATES, 1955

Mr. BUSBEY. We have before us for consideration at this time a supplement of $2,626,500 to the budget request for "Assistance to States, general," which was transmitted to the Congress under date of May 11, 1954, by the President of the United States and is set forth in House Document No. 386. The original budget request was $15,039,000. The supplemental, therefore, increases the request to a total of $17,665,500.

Dr. Haldeman, you are going to justify the request, I believe?

Dr. HALDEMAN. Yes.

Mr. BUSBEY. Would you care to present your general statement at this time?

GENERAL STATEMENT

Dr. HALDEMAN. Yes, Mr. Chairman; it is fairly short.

Mr. Chairman and members of the committee, the supplementary request for the appropriation "Assistance to States, general" raises the requested 1955 level of general health grants to States to $14,386,500—an increase of $2,626,500 over the original 1955 appropriation estimate.

In combination with appropriation requests for grants to States for tuberculosis control, mental health services, cancer control, and heart disease control, the total requested level of Public Health Service grants to States for fiscal year 1955 is $22,086,500. This is the same amount that is available for Public Health Service grants to States in the current fiscal year.

This request to maintain the total grants for 1955 at the current 1954 level is the result of an analysis of the cumulative effects upon State and local public health programs of grant reductions in each fiscal year since 1951. As a result of numerous reports from private citizens and official and voluntary agencies throughout the country, it has become increasingly apparent that public health protection for the people would be seriously curtailed if further reductions in Federal grants were made in the 1955 apppropriations. The necessity for a reversal of the last 4 years' trend in public health grant appropriations has also been emphasized in connection with the new public health grant legislation recommended to the Congress by President Eisenhower. Maximum effectiveness of this new legislation requires stabil-

ity in financial support which will ensure that continuing public health programs are maintained as a base from which essential services to the people can be improved and extended.

The additional funds are requested in the general health grant rather than in the various categorical program grants in order to permit States' flexibility in expenditure of the funds which is necessary to insure maintenance of the highest priority programs. Priority of programs varies widely among States because of the variation of public-health problems and of the adequacy of State, local, and voluntary agency financing. If the States are given the opportunity to exercise their initiative and responsibility in determining the programs in which these supplemental funds are to be used, the appropriation will accomplish a greater degree of health protection than if the Federal Government determines the pattern of expenditure on a nationwide basis.

Those States in which venereal disease and tuberculosis control are the highest priority problems can use these funds to maintain their casefinding and diagnostic services in these programs. Other States can use the funds to continue in operation their public-health laboratory services, their sanitation inspectional activities, their local health units, their health education program, or their chronic diseases services.

The job of protecting the public health of the people is a partnership of the Federal Government, the State governments, and the local units of government. Through the mechanism of grants to States the Federal Government discharges part of its responsibility while at the same time taking full advantage of the State and local units of government which are close and responsive to the particular needs of the people whom they serve.

I will be glad to attempt to answer any questions the members of the committee may have.

CHANGES IN SITUATION THAT PROMPT SUPPLEMENTAL REQUEST

Mr. BUSBEY. Dr. Haldeman, do you recall the date that you were before this committee to justify the request of $11,760,000 for grants to States under this appropriation?

Dr. HALDEMAN. It was about 6 weeks ago—March 31.

Mr. BUSBEY. Doctor, when you were before the committee, a few weeks ago I thought you did a good job of justifying $11,670,000. There must have been some serious and important changes in the situation during the last few weeks to make it necessary to come back before the committee for an increase in the appropriation request of aproximately 20 percent? What is it that has happened since you were here on March 31 to justify a 20 percent increase?

Mr. LARMON. Mr. Chairman, may I answer that, since it is a recommendation of the Department?

Mr. BUSBEY. Yes.

Mr. LARMON. The general purpose in connection with our coming before you has been discussed for some months. There were conferences and discussions that have been going on in our division in regard to this particular problem.

The Department, since coming up for the request under the regular departmental budget, did reach a decision, a departmental decision, and, as you know, the Bureau of the Budget presented the matter in its recommendation to the Congress.

Mr. BUSBEY. This item certainly was discussed thoroughly before you prepared the original budget.

Mr. LARMON. It was discussed at that time, Mr. Chairman, but it was discussed further; after that there were meetings with the Association of Public Health officers and the matter was discussed with them after this former decision was made, and discussed by Dr. Fry and Dr. Haldeman.

ALLOCATION BY STATE

Mr. BUSBEY. Do you have a table that shows how this money would be allocated to the States, if your request for the increase is granted?

Dr. HALDEMAN. Yes, Mr. Chairman, I do not have such a table with me. We can supply it for the record.

(The information requested follows:)

Tentative allocation of general health funds for fiscal year 1955 based on revised budget request compared to original budget request for 1955

	1955 revised general health allotment	1955 original budget request for general health	Increase of revised over original request
Total	$14,386,500	$11,760,000	$2,626,500
Alabama	424,200	346,700	77,500
Arizona	111,000	90,700	20,300
Arkansas	266,300	217,700	48,600
California	774,600	633,200	141,400
Colorado	146,300	119,600	26,700
Connecticut	137,700	112,500	25,200
Delaware	24,300	19,900	4,400
District of Columbia	51,400	42,000	9,400
Florida	317,700	259,700	58,000
Georgia	426,900	349,000	77,900
Idaho	84,300	68,900	15,400
Illinois	590,600	482,800	107,800
Indiana	331,400	270,900	60,500
Iowa	223,500	182,700	40,800
Kansas	188,700	154,300	34,400
Kentucky	365,100	298,500	66,600
Louisiana	313,000	255,900	57,100
Maine	105,700	86,400	19,300
Maryland	193,600	158,200	35,400
Massachusetts	353,800	289,200	64,600
Michigan	495,600	405,100	90,500
Minnesota	272,800	223,000	49,800
Mississippi	360,900	295,000	65,900
Missouri	339,100	277,200	61,900
Montana	75,500	61,700	13,800
Nebraska	140,400	114,800	25,600
Nevada	42,700	34,900	7,800
New Hampshire	55,600	45,400	10,200
New Jersey	347,200	283,800	63,400
New Mexico	105,600	86,400	19,200
New York	948,200	775,100	173,100
North Carolina	523,600	428,000	95,600
North Dakota	85,600	70,000	15,600
Ohio	600,200	490,600	109,600
Oklahoma	247,900	202,600	45,300
Oregon	153,700	125,700	28,000
Pennsylvania	811,100	663,000	148,100
Rhode Island	63,300	51,800	11,500
South Carolina	289,900	237,000	52,900
South Dakota	88,600	72,500	16,100
Tennessee	398,500	325,700	72,800
Texas	767,200	627,100	140,100
Utah	97,700	79,900	17,800
Vermont	49,800	40,700	9,100
Virginia	364,200	297,700	66,500
Washington	193,500	158,200	35,300
West Virginia	216,700	177,100	39,600
Wisconsin	286,700	234,300	52,400
Wyoming	54,400	44,400	10,000
Alaska	60,600	49,600	11,000
Hawaii	50,700	41,400	9,300
Puerto Rico	362,000	295,900	66,100
Virgin Islands	6,900	5,600	1,300

POLICY REGARDING GENERAL GRANTS

Mr. BUSBEY. Doctor Haldeman, we went over this general policy with regard to State grants when you were before the committee on March 31, and I have thought about it quite a bit since then. The more I think about it the more it looks to me like this is a form of subsidy, especially where you want to do away with the categorical grants and turn funds over to the State health departments to do with as they please.

I have been in favor of getting these States to assume a larger proportion of responsibility, and with the $7 billion tax reduction which

we hope will be the fact when the Congress adjourns, the States are going to be in a much better financial position to handle their problems than they now are.

I do not know how my colleague from Rhode Island feels about that, but that is the way I feel about it.

Dr. HALDEMAN. Mr. Chairman, the proposal to increase the general health grants to compensate for the reduction in categorical grants does permit the States to exercise greater initiative and to assume more responsibility in the program. And it also makes the Federal assistance more responsive to the needs of the States, and there is stimulation by virtue of the Federal Government not dictating the specific categorical disease areas in which the dollars may be spent. Likewise, our decision for requesting this supplemental appropriation, I think, was also the result of study of the effects that have occurred after the reduction over the last 4 or 5 years, since 1950, and the conclusion that it was essential to meet the needs and to maintain stability in the health programs on which these grants funds cooperate.

Mr. BUSBEY. Perhaps other Members of Congress look on this a little differently than I do, but if the Federal Government is going to appropriate money for these programs, I would like to know what the money is being spent for. When we make general appropriations, we have no idea what it is being spent for; we know in a general way, but that is all.

Dr. HALDEMAN. Mr. Chairman, we do know the types of activities in which these general health grants are expended.

Mr. BUSBEY. You know the general types of activities.

Dr. HALDEMAN. For instance, in 1954, there were budgeted out of grants made available for general health services in the States, $3.5 million or 34 percent of the appropriation was for local health service; about 15 percent for environmental sanitary activities; 10 percent for laboratory services; 7 percent for occupational health activities; approximately 5 percent for training; approximately 4 percent for activities relating to vital statistics. Public Health Nursing and Education makes up the small portion of the remainder. So I think we do know the types of activities supported by these general health funds.

Mr. BUSBEY. Under which one of the activities does venereal disease control and tuberculosis come?

Dr. HALDEMAN. In the past, very little of the funds under this appropriation are being utilized in those programs. However, 34 percent, as I said, goes to local health services; 6 percent for services for public health nursing and then, turning to the tuberculosis program, and laboratory services, you will recall that there is another rather large item and these activities, of course, again are essential to the venereal disease and tuberculosis control programs.

REASONS FOR REQUEST BEING MADE AS A SUPPLEMENTAL

Mr. BUSBEY. I also am frank to say that I am at a loss to see why this item should not have been in the regular budget request which was before the committee on March 31, if it is actually necessary.

Mr. LARMON. I can assure you, Mr. Chairman, that there was no plan involved in that case. This is a matter that was taken up in the Department and discussed further and a decision was made after we appeared before the committee at that time.

Mr. BUSBEY. Of course, the reason I raise a lot of these questions is to show frankly what is going on in my mind, so we can get something in the record to change my mind if I am wrong.

Mr. LARMON. Yes.

Mr. BUSBEY. If I were not that fair to you, and kept that from you, there would be no chance for you to convince me that I was wrong in my thinking.

Mr. LARMON. I understand.

Mr. BUSBEY. I am disappointed that all these supplemental requests that have been coming before the committee were not included, if they are necessary, in the original budget request, and considered under the overall ceiling that was given the Department by the Bureau of the Budget in the first instance. Frankly, as far as I am concerned, this is going to be considered as an original request of the Department.

TOTAL PUBLIC HEALTH GRANTS TO STATES

I think that, notwithstanding the fact that it will be somewhat of a duplication, we should have, at this point, a table showing by individual appropriations and in total, the public health grants to States for 1954, and as now budgeted for 1955. Will you supply that information for the record at this point?

Dr. HALDEMAN. Yes, sir.

(The information requested follows:)

Comparison of the 1955 revised budgets for formula grants with the 1954 appropriations

Appropriation	1954 appropriations	1955 revised estimates	Difference
Assistance to States, general, PHS	$10,135,000	$14,386,500	+$4,251,500
Control of venereal diseases, PHS	[1] 1,976,500		−1,976,500
Control of tuberculosis, PHS	4,275,000	2,000,000	−2,275,000
Salaries, expenses, and grants, National Cancer Institute, PHS	2,250,000	2,250,000	
Mental health activities, PHS	2,325,000	2,325,000	
Salaries, expenses, and grants, National Heart Institute, PHS	1,125,000	1,125,000	
Total	22,086,500	22,086,500	

[1] Excludes $1,523,500 for grants of services and supplies shown in direct operations for comparability with 1955 budget.

REASON FOR RECOMMENDING CONTINUATION OF SMALL SEPARATE TB GRANT

Mr. BUSBEY. Referring to the last paragraph on the first page of your statement, Dr. Haldeman, it seems to me that in order to be consistent in this line of reasoning, why are you not recommending these grants to tuberculosis be consolidated under this appropriation?

Dr. HALDEMAN. The present proposal is consistent with the legislative program which the President recommended to the Congress in terms of permitting greater flexibility.

We feel that the categorical grants in venereal disease and tuberculosis have been useful vehicles in initiating these programs. The States now recognize the importance of these programs, as evidenced by organized programs in all of the States and Territories. We feel that the role of the Federal Government to stimulate new program

development can best be carried out through mechanics which permit greater flexibility, and changes of emphasis as new health problems develop. It is different, of course, in different parts of the country. In the Southeastern States, for example, we have a very large problem there in diarrheal diseases; and in New England, some of the problems are related to the aging processes and should be greatly emphasized. We still have areas with very intense venereal disease problems; and if the States are permitted greater flexibility, we feel it will more nearly accomplish the program objective.

Mr. BUSBEY. Well, to me, it looks like you are saying in effect that it is good to consolidate a part of them but not the rest of them.

In the committee print, on page 110, the tables for tuberculosis show grants of $4,275,000 for 1954 and only $2 million for 1955. Why do you not go all the way?

Dr. HALDEMAN. This permits, of course, for gradual transition. However, the proposal before you today is consistent with the objective contained in the legislation currently before the Congress in regard to the grant programs.

Mr. BUSBEY. It just seems to me that if it is good, it is good, and if it is not good, it is not good. I do not see how it can be considered 50 percent good and 50 percent bad.

Mr. HARLOW. Maybe I can add a little enlightenment to that, Mr. Chairman.

Mr. BUSBEY. I will admit, Mr. Harlow, that you generally add enlightenment to any subject that you speak to; and that is a sincere statement.

Mr. HARLOW. Thank you, Mr. Chairman; I appreciate that, and I do not believe I have ever heard you make what I would consider an insincere statement.

It so happens that I participated in the conference with the Secretary and Under Secretary when these original budgets were prepared. And the original proposal shows that we did come up for tuberculosis with the same amount in grants as were carried in the 1954 appropriation.

At that time—and I do not remember just at what stage of the legislative program it was with respect to changing these grant formulas, and the law with respect to the grants—but it was developed at that conference that it was to be the policy that we were to move away from categorical grants as much as we could.

So the ultimate result of that discussion was that a reduction was made in the tuberculosis grant item and an increase was put into the original amount that had been allocated for general grants to States, the idea being that since the new legislation would affect the 1956 budget, we would move in 1955 toward that objective to the extent of about half of the tuberculosis control grants.

In other words, although the Department believes in a general grant, along the line of the proposed legislation, the feeling was that perhaps it should not be a matter of all at one time, and that 1955 should be a somewhat of a transitional period.

I hope that I have made myself clear.

Mr. BUSBEY. I appreciate your explanation, but I still am not sold.

Mr. LARMON. All of this, Mr. Chairman, is to give more elasticity to the whole matter of matching funds.

Mr. BUSBEY. It seems, Mr. Larmon, that the idea is to get away from the categorical grants in this respect. On the other hand, there is certainly no disposition on the part of the Department to get away from categorical grants to the National Institutes of Health.

Mr. LARMON. There is no serious consideration today of that within the Department.

Mr. BUSBEY. Mr. Fogarty.

Mr. FOGARTY. I have listened to all of these explanations about this supplemental appropriation request, and I am not going to accuse anyone of holding back any information, but it does not seem to me that everything is in the record as yet.

Dr. Haldeman, how long have you been with the Public Health Service?

Dr. HALDEMAN. Since 1941.

Mr. FOGARTY. Since 1941?

Dr. HALDEMAN. Yes.

BACKGROUND OF DR. HALDEMAN

Mr. FOGARTY. What have been your assignments since 1941?

Dr. HALDEMAN. I have been a local health officer in Kentucky. I worked in the regional office setup, in two different regional offices—Puerto Rico and New Orleans. I was the executive officer of the hospital survey-construction program during the first 2 years of its history. I was the first officer in charge of the Arctic Health Research Center; I was Chief, Division of State Grants here at headquarters and later in charge of the Division of General Health Services.

Mr. FOGARTY. I remember your services in connection with the Alaska health program, and I want to say for the record that the program that we have in Alaska today is largely the result of the leadership you gave it, and the results that have been obtained are largely because of the work you put into it.

Dr. HALDEMAN. Thank you.

Mr. FOGARTY. I think we started the first appropriation of funds to support that special program in Alaska.

Dr. HALDEMAN. Yes.

RESPONSE TO COMMITTEE MEMBERS' QUESTIONS

Mr. FOGARTY. I think you deserve all the credit, and I think you are doing a good job here.

That calls to mind, since you were asked the question by the chairman as to when you appeared here before this committee, and I do not know whether you readily remembered the date or not, but you certainly remember the day, and I certainly remember the day.

Dr. HALDEMAN. Yes.

Mr. FOGARTY. I thought it was very unfair of Mr. Rockefeller at that time to say what he had to say when you were testifying before this committee. Your testimony was the result of my questioning you. And I hope that the time never comes when anyone in the Office of the Secretary of Health, Education, and Welfare, will be able to control your thoughts or your answers before this committee when a

member of this committee asks questions of you or of any other member of the Public Health Service. I hope that statement means something in the future, because, as long as I am a member of the committee, I want to see to it that the witnesses are protected, and that the answers are given in response to questions and those who are giving the answers will not in any way have cause to be embarrassed by their responses.

Mr. LARMON. May I say, Mr. Chairman, for the Department, that the witnesses who appear before you are assured, and you gentlemen have previously been assured, that they can answer any questions that are raised within the range of their expertness, and they will not be embarrassed by the answers. There is no question respecting that today.

Mr. FOGARTY. We expect that to happen. I was hoping that Mr. Rockefeller would be here today. I remember his interference at the time and his chastisement of this witness. I think it was uncalled for, and I think he was feeling a little more authority on his shoulders than was given to him under the law, because as long as the Public Health Service has some independent status, I am going to see to it, as much as I can, that that independence is maintained and that it is maintained by the Congress in every respect.

I am not saying this in reference to anything you have said, Mr. Larmon. It is something that I have had in my mind since the 31st of March, and I wanted to get it off of my mind, and now it is off, and on the record.

Mr. LARMON. I understand, of course. If you will permit me, Mr. Chairman, since Mr. Rockefeller is not here to testify, to assure you of my high respect for him, and I know personally that he would not consciously do anything unfair or would not in any way interfere with the prerogatives of the committee or the witness.

Mr. FOGARTY. He may have not have thought it unfair himself during the discussion with the doctor, but I do not want to see it happen again.

POLICY REGARDING GENERAL GRANTS

Now, I share the opinion of the chairman of this committee concerning the wisdom of making these appropriations in lump-sum grants. I have always been of the opinion that we should maintain these categories in the grant items, so that we would have, as members of this committee, information as to what fields the money is being spent in, instead of finding out the next year how the States did spend the money.

This is not a new idea, as far as the Public Health Service is concerned, because the recommendations have been made in the past to this committee. Six to seven years ago, a huge increase was requested for "Assistance to States, general"—I think it was about $25 million—and the purpose then was to eliminate many of these categorical grants for tuberculosis, venereal disease, and so forth.

The committee at that time refused the increase and I think said in its report we thought we should continue these categorical grants. The Bureau of the Budget had taken something away from the two programs for TB and VD, and, as a result, the venereal disease and tuberculosis programs began to go down.

Now, even though legislation has been introduced, I feel the same doubt, as the chairman has indicated, that we should not give lump-sum grants to States to spend any way they see fit.

Dr. HALDEMAN. Mr. Fogarty, may I just discuss that for a moment?

Mr. FOGARTY. Certainly.

Dr. HALDEMAN. I mentioned previously, I think, the desirability of flexibility in these grant funds. The present categorical grant structure does not permit, we feel, the flexibility that is desirable in terms of changing health problems. We consider the role of our grants to have several functions: One is to some extent a support function which is to support, to assure, a certain basic public health staff, under which you can build your nucleus for more specialized types of service.

We do feel likewise that another and equally important purpose of the Public Health Service grant is to stimulate new and needed programs.

I feel that the categorical grant approach has been extremely valuable in this regard. However, it does lack flexibility which will permit, as your problems decrease in importance and as the States have accepted the program as a part of their regular responsibility, the shifting of the emphasis to other activities for which many States will have a program of higher priority.

Fundamentally, in view of what we feel is the role of the Federal Government in stimulating the new programs, we feel that this approach will permit our doing that.

I would like also to point out that the categorical approach, with the necessity for following the Federal dollars, has introduced audit and other administrative problems which, with the greater State determination and with the different approach, will tend to be minimized.

Mr. FOGARTY. It may be that there are facts yet to be presented, but I am still not convinced that it is a good thing, and as the chairman mentioned a while ago, if this language is going to be allowed, then in a year or two it will be a matter of lumping all of the National Institutes of Health, into an overall fund for research. That has been the subject of discussion in the past, I know. I have always been opposed to it. I realize that having these line items in the budget might require a lot more in the way of justification and accounting and it may cost a little more money for administration, but we know how much money is being appropriated for cancer and for heart, and for mental health and for these other categories for which Congress has set up funds.

Mr. LARMON. Mr. Fogarty, in regard to the recommendation pending before you this morning, I think most of the cause for that recommendation for putting more funds into the "Assistance, States, general," arises from the fact that the State health departments were really in need, and those funds have been most effectively used, and the recommendation before you this morning is largely based on that.

Mr. FOGARTY. I understand that, and I have been told that the request for the new legislation was because the State health officers

agreed that it was the type of legislation they wanted, and I think they are practically unanimous, but when we make an appropriation for teaching cancer in medical schools, we know the money that is being spent for teaching cancer; do we not?

Mr. LARMON. That is correct.

Mr. FOGARTY. And the same for heart and mental health.

Mr. LARMON. Yes.

Mr. FOGARTY. I think we should insist upon it. I do not think we should make $25,000 available to a school for teaching cancer, and then permit the dean of the medical school to decide he needs it for mental health, or something else.

The point I am trying to make is that I think we lose control, to a certain extent, over the expenditures of these funds when we give them in a lump-sum grant to the State health officers.

Mr. BUSBEY. Will the gentleman yield?

Mr. FOGARTY. Yes, sir.

STATUS OF LEGISLATION

Mr. BUSBEY. What is the number of this bill now pending in the House of Representatives which deals with this question?

Dr. HALDEMAN. H. R. 7397.

Mr. BUSBEY. Is that bill before the Senate now?

Dr. HALDEMAN. That is correct, sir.

Mr. BUSBEY. Has the Senate held any hearings on the bill?

Dr. HALDEMAN. They have completed their open hearings.

Mr. BUSBEY. For my enlightenment, just what does H. R. 7397 do which would change the allocation of Federal funds?

Dr. HALDEMAN. The new legislation has three objectives. One is to continue the basic program support to the States, according to their financial need; two, to encourage States to improve and expand services to the people, and three, to encourage demonstrations in the development of new techniques.

It proposes to meet these objectives through a unified grant structure which would be developed through taking the existing grants for venereal disease, tuberculosis, cancer, heart, and mental health, and combining them into a single grant system which would be of three parts. One part would be to carry out the first objective to which I referred, and that is, the basic support.

Those grant funds would be allotted under the Hill-Burton formula.

The second objective would be carried out through funds made available for what we call extension and improvement, which would be on a different matching basis, and the third objective would be under the provision of special project grants for demonstrations, study, and the development of new techniques. So, you would have, instead of the current 5 separate controlled grant appropriations, a single appropriation with 3 different activities.

Mr. BUSBEY. You would have a great deal of latitude in the distribution of the funds under that law?

Dr. HALDEMAN. Under the law, the State would prepare a State plan, as it does now, subject to negotiation with the Surgeon General.

For instance, the funds for extension and improvement would be for either extensions of health service into those many areas where they are not now covered with basic health services, or the development of new and needed programs.

It would have a matching provision which would vary among individual projects within a State. A project would be eligible for 75 percent Federal participation during the first 2 years of its existence; 50 percent for the next 2 years, and 25 percent for the following 2 years.

Mr. BUSBEY. What committee in the Senate is presently considering that legislation?

Dr. HALDEMAN. The Senate Committee on Labor and Public Welfare.

Mr. LARMON. In the recommendation before you, it is the conviction of the Department that, taking into account other factors and the requests of the State and Territorial health officers, this would make the program more effective, since the needs in any State do vary.

That is the recommendation from the Department, but if that is not acceptable to Congress, nor acceptable to this committee, I would still recommend the funds be granted.

Mr. FOGARTY. I feel as the chairman does in regard to this matter. The question is the end result, and what are the results going to be?

I can see that in certain States the tuberculosis rate is higher than others, and they have a venereal disease problem in some areas, especially in the South, which is much more acute than in other States in the North, so perhaps they should be allowed to spend more of their money on control of venereal disease in one State than another State.

Perhaps there should be some flexibility, but we ought to have a maximum or a minimum in these grants so we would know just what the needs are ahead of time.

The way you propose, we would be appropriating this year, and next year we will find out what it was spent for. Is that not true?

Mr. LARMON. You will find out, I assume, specifically next year, how it was spent, and in the meantime—and Dr. Haldeman can correct me—the States have to submit plans to him indicating use, and there is foreknowledge in regard to use.

Dr. HALDEMAN. Under the new legislation we anticipate developing in advance, insofar as practicable, the methods by which the money would be utilized. I think you will appreciate that early in the operation of the program we are not in so good a position as we will be when we have some operating experience, but the pending legislation, I sincerely feel, provides the flexibility necessary to permit shifting of emphasis and the status of programs as the public-health problems change.

We have had our venereal-disease grants now since 1937, as I recall. Public-health research has developed many new public-health techniques which we feel should receive the stimulation that is possible through the grant technique.

Mr. BUSBEY. As I see it, Mr. Fogarty, if H. R. 7397 passes and becomes law, we do not have very much discretion as to how these funds are to be spent. In other words, it appears to me that they are

transferring the responsibility and the authority of the Appropriations Committee over to the Department.

Mr. FOGARTY. Well, no; we still have control over how much will be appropriated, of course, but, as I look at it, it is a question as to whether it is the best thing to do.

Mr. BUSBEY. I have reference to the method of allocation by category. The argument which they use for this certainly would hold true for the elimination of the categorical grants in the National Institutes of Health.

Mr. FOGRATY. We go further than that. We not only give the authority to the Department, but for all practical purposes it goes to the health officer in every State because they would be the ones who make the original determination as to how much they need in each category.

That is one of the arguments which I have always used against something like this. If you had a health officer who was extremely interested in cancer, the State funds would be spent in cancer. He would do his level best to see to it that they were spent in the field in which he was interested. That is human nature.

Dr. HALDEMAN. We have a number of mechanisms which we feel will minimize that problem. One is through the review of plans and the close working relationship in the development of the plans. We have an annual conference with the State health officers. I do not feel that we have really had that problem in terms of our general health grants to date.

Mr. LARMON. Mr. Chairman, Mr. Fogarty, I would like to point out, if I may, that the plan has to be submitted, and it has to be acceptable in regard to the use of funds and in regard to the appropriation.

If you appropriate money to a given State for one of these categories, you cannot be sure in regard to the particular need—I mean the priority of need—within that particular State.

If I may suggest this in regard to the authority of the Appropriations Committee, there will be very important authority under any statute or bill that is passed in that the Appropriations Committee would determine the amount of funds going for support and the amount of funds going for extensions and improvements and the amount of funds going for special projects. That would be for the determination of the Appropriations Committee and not the legislative committee. This depends fundamentally and obviously on giving more discretion for recommendation on the part of the States in regard to its particular needs to be used for health purposes.

RELATIONSHIP OF SUPPLEMENTAL TO TB AND VD APPROPRIATIONS

Mr. FOGARTY. In your discussion of this supplemental, did the problem of the control of venereal disease and tuberculosis come into that discussion?

Mr. LARMON. Dr. Haldeman, I think, was present, and he can answer.

Dr. HALDEMAN. Yes; I think it has come into it quite prominently because I am sure you are aware that there have been numerous letters from individuals and organizations.

Mr. FOGARTY. The reason I asked was because I have received numerous letters from the States and from the tuberculosis people

and from the National Tuberculosis Association, expressing concern about the program.

Dr. HALDEMAN. We gave very serious consideration to it for the very reason that you refer to. However, when all sides of the question were considered, we felt that it was best to make an arrangement so that the individual State would be in a better position to utilize these funds to augment its highest priority programs.

Mr. FOGARTY. How would this $2 million affect those two programs? That is, the programs for venereal disease and tuberculosis?

Dr. HALDEMAN. If in those States the venereal-disease program is of highest priority, like you have a problem in Arizona in terms of venereal disease along the border, it might well be that the best use of these funds would be to strengthen that venereal-disease program.

Mr. FOGARTY. Is this an answer to the protest which we have received from the States, and from the National Association in regard to these two programs?

Dr. HALDEMAN. I think the comments that the Department has received in relation to those programs had a very substantial influence in arriving at their decision.

Mr. FOGARTY. Can I say to these groups that this is the answer to the problem? I was told that the National Tuberculosis Association was going to request an appearance here before this committee.

Have they done so as yet?

The CLERK. Yes, sir.

Mr. FOGARTY. When they come before the committee, can I say to the representative of the national association that this takes care of their problem?

Dr. HALDEMAN. I think you can point out that the total amount of money being made available to the States for control grants in fiscal year 1955, or the total amount, rather, that has been under consideration, is the same as was appropriated in 1954. To the extent that the tuberculosis program has a priority in any State in relation to other programs, the problem can be met with the funds requested.

Mr. FOGARTY. When I read that to them, I do not think that is going to be a very satisfactory answer, Doctor. I do not know, and perhaps I am prejudging it, but I would doubt if that would answer what they have in mind.

I have not talked to them, but I did receive a letter from them, and I think I referred to that letter in the previous testimony when we had the tuberculosis people here, if I remember rightly.

That is all, Mr. Chairman.

Mr. BUSBEY. This meeting concludes the appropriation requests from the Department, and the justifications before this committee.

Starting tomorrow, we will begin to hear outside witnesses, and will continue with outside witnesses all next week. However, before the adjournment of this meeting, I would like to mention one thing for the record:

Mr. Russell Larmon, Assistant Secretary of the Department of Health, Education, and Welfare, has been present at the hearings, but not as the head of a division or bureau to justify any particular appropriation. However, I would like to state that he has been very faithful in his attendance, and has been as helpful as possible to the committee. He has been exceedingly helpful in connection with differ-

ent requests that I have made of him outside of the committee. I am personally satisfied that Mr. Larmon has brought to the Department an experience and qualification that is very rare in Government. I think that experience has been of considerable help to the Department of Health, Education, and Welfare.

Mr. LARMON. Thank you very much, Mr. Chairman.

May I say to you, sir, and to Mr. Fogarty, and to the other members of the committee that the Secretary and the Under Secretary have already expressed their appreciation to you, and to the other members of the committee. I can only say that I endorse those statements, and I would like to offer some of my own, as a representative of the Department:

I appreciate the graciousness to me and to other representatives of the Department. I appreciate the fact that we have had full opportunity to justify the recommendations before you. I believe there has been an understanding of the complexities with which the Department deals, and I think that you gentlemen understand that we are trying to develop an effective Department for serving human needs.

May I say also, sir, that I appreciate the opportunity for association with you gentlemen, and with your chief of staff, Mr. Moyer.

May I say to you, Mr. Fogarty, that I do appreciate your deep interest and sincere interest in these programs, and that I recognize at times there has been a self-imposed restraint on the full use of your skills.

Mr. FOGARTY. I would not say that, Mr. Larmon, but I do want to second everything the chairman has said about you. I did not think, when these hearings started, that you people were doing a very good job, but now that we have started to get these supplementals, I think now you are doing a much better job. You are learning fast, and you have learned exceedingly fast during this calendar year.

Mr. BUSBEY. You mean by that they have learned exceedingly fast to raise the budget request.

Mr. FOGARTY. Yes; and they have learned to go along with the program. This status quoism, you know, does not go with me. I like to see a little progress in these fields. I think they will do a good job, if they receive the money.

Mr. Larmon, I have at times, made myself a little bit obnoxious, but since I have been on this committee we have always had a great deal of affection for and sincere interest in the Public Health Service, and the Office of Education. When Mr. Keefe was chairman of the committee in 1947 and 1948, I served under him, and he was very jealous of the independence of those two agencies within the Federal Security Administration at that time. I worked with him at that time, and during the period when I was chairman of the committee, we saw to it that they maintained their independence and we insisted that they have their day in court, and not be dictated to by anyone. I think those two agencies have the respect and the support of both parties in the Congress, and I can give one good concrete example of that.

During the last 3 or 4 years, excluding last year, we had the so-called Jensen amendment attached on all appropriation bills. It prevented 10 percent of the vacancies from being filled, and Mr. Jensen on each

occasion exempted the Public Health Service. I think that is an example of how the Congress itself feels about these two agencies, and that was one of the reasons I raised the questions I did yesterday in regard to these new accounting procedures, and other centralized services. I feel that sometimes we are going a little too far in that field, in that we may be taking their independence in some of these moves by the Department. That is something which I am sure I would never stand for, and I am sure that the Congress would not want to see it done. I can see where that independence could get very weak if we had a weak Surgeon General and a dominating Secretary of Health, Education and Welfare.

It does not make any difference what party is in control. What I am saying does not refer to anything that is going on at the present time, or to those who hold office, but in some future year I can see where it could happen, under the Democratic Party or the Republican Party, that the Secretary of Health, Education, and Welfare would want a lot of power, and by various moves within the Department could take away some of the independence of the Public Health Service and the Office of Education, and use it to his or her advantage, but to some disadvantage of the people of the country. That is the reason I spent as much time as I did upon that question.

As long as the chairman has said something about Mr. Harlow down here on my left, I will say that I have heard Mr. Keefe, when he was chairman, say exactly what you did about Mr. Harlow, and I have said the same about him in past years.

I think he has given wonderful service to the Public Health Service. He has had the respect of every chairman who has served on this committee, and all members of this committee. I am sure that he will continue for many more years as Budget Officer of the Public Health Service and continue to give service to this committee.

Mr. HARLOW. Mr. Chairman, I hesitate to make any comments with respect to that. I can only say that I deeply appreciate the kind words that have been said to me today, and also in the past, by other members of Congress. I really honor the memory of Mr. Keefe. I think he was one of the ablest legislators we have ever had, and had one of the keenest minds and the keenest insight into the importance of our programs of any man I have ever known.

Mr. BUSBEY. Thank you, Mr. Harlow. We all respect the great work that Mr. Keefe did on this committee.

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